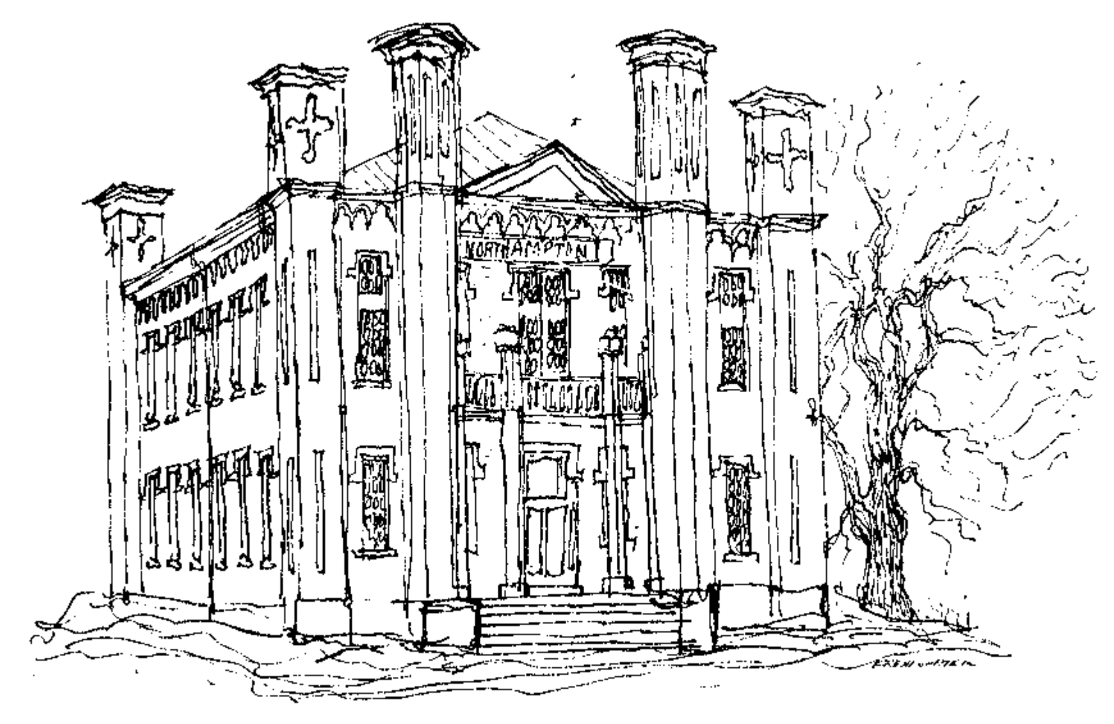
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COMPREHENSIVE PLAN SUMMARY



NORTHAMPTON

MASSACHUSETTS

METCALF & EDDY, INC. 1970·72

SUMMARY
of the
COMPREHENSIVE PLAN
for
NORTHAMPTON, MASSACHUSETTS

June 1972

This report was prepared for the City of Northampton Planning Board and the Massachusetts Department of Community Affairs, and was financially aided through a Federal grant from the Department of Housing and Urban Development under the Urban Planning Assistance Program authorized by Section 701 of the Housing Act of 1954, as amended.

The Meadow City



THE PLANNING BOARD
237 PROSPECT STREET
NORTHAMPTON, MASSACHUSETTS 01060

TO THE CITIZENS AND OFFICIALS OF NORTHAMPTON:

After more hours of study, meetings, and deliberation over the last two years than we could possibly document, we are pleased to submit to you this Northampton Comprehensive Plan for Community Development and Improvement.

Please look upon it as we have developed it – an inventory and guide for the city over the next twenty years or so. It should constantly be reviewed, updated, and improved; and thus used to its fullest. Don't consider it cast-in concrete and steel – unchangeable, but in clay to be moulded to meet changing conditions, needs, and aspirations.

In this relatively compact document is an inventory of facts and details about Northampton. We have appreciated the opportunity to work with Metcalf & Eddy, Inc. on this Plan, and are particularly indebted to many, many interested citizens and city officials for their energetic help and suggestions. The planning proposals which have been drawn from this information should help us to chart a reasonable course into the future.

As the city moves through the twenty-year planning period conditions will change, needs will change, new ideas will appear, and other factors will come into view as planning segments are carefully considered for implementation. Perhaps in some instances we have been a bit idealistic in structuring our desires for a better community, but better to reach a little high than never to have tried at all.

We urge the prompt adoption of a new Zoning Ordinance as a necessary part of orderly planning for the future. The hiring of a full-time planner and the establishment of a capital budgeting program are two prime recommendations that have evolved from our work. If properly utilized, both should be of the utmost importance in building a better city. We will consider our work a success if the Master Plan simply forces us to look into an imperfect future with its problems and possibilities, thus requiring us as a community to order our priorities and seek to control our destiny, rather than simply to react to one crisis after another.

Respectfully,

Everett W. Ladd, Jr.

The Northampton Planning Board
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ABSTRACT

TITLE:	Summary of the Comprehensive Plan for Northampton, Massachusetts
AUTHOR:	Metcalf & Eddy, Inc.
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DATE:	June 1972
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ABSTRACT:

Northampton is a small city of approximately 30,000 population in the Connecticut River Valley just north of the Springfield-Chicopee-Holyoke metropolitan area. The city is an integral part of the educational community involving principally the University of Massachusetts, Amherst College, and Hampshire College in Amherst, Smith College in Northampton and Mt. Holyoke College in South Hadley. Over the past 20 years, its population size has remained virtually unchanged. At the same time, 16,000 acres or 70 percent of the city's land is undeveloped. This includes approximately 3,700 acres of flood-plain and flood-prone lands. In the last seven years, an interstate highway has been constructed through the city with local access provided at one full interchange and two half interchanges. It is all these situations which have set the framework for the development of the Comprehensive Plan for Northampton.

23%

This report first presents an inventory and analysis of the physical, economic and social situation in Northampton. Past trends and present conditions of land use, soil suitability, population, housing and local economic base are presented as a basis of evaluating alternative policies for future development of the city.

Potential growth possibilities in Northampton make it possible for substantial development to take place in a disorderly fashion without desirable controls on the part of the city. This Comprehensive Plan strongly recommends a development policy which will serve as a guide to the orderly and controlled growth of the city. The "Controlled Growth Plan" is adopted by the Planning Board and recommended to the city for implementation. Because the present outdated zoning ordinance is inadequate to the task of controlling and structuring land use and population density, the adoption of a new zoning ordinance is recommended. The proposals on land use, streets, schools, recreation and conservation, and city buildings reflect the recommended controlled growth policy. In addition, detailed studies and plans are presented for the central business district.

Plan implementation is approached through a review of the present system of city codes and ordinances and recommendations for improvements to this system. The full text of the proposed zoning ordinances and subdivision regulations are presented as separate documents. The governmental organization for plan implementation is reviewed and changes are recommended. Finally, a fiscal analysis and a six-year capital improvements program is presented.

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June 30, 1972

Northampton Planning Board
City Hall
Northampton, Massachusetts

Attention: Mr. Everett Ladd, Chairman

Gentlemen:

In accordance with the terms of our agreement dated June 1, 1970, we are pleased to submit this "Summary of the Comprehensive Plan for Northampton, Massachusetts".

The preparation of this report represents the culmination of a 24-month effort by the Planning Board, the Citizens' Advisory Committee, other interested groups and citizens, city officials, and Metcalf & Eddy, Inc.

The Comprehensive Plan for Northampton represents a flexible guide for future development of the city and is a statement of Northampton's development policy for the next 20 years. As needs and conditions change, it should be kept up to date. At the same time, the plan must be purposefully administered since it is not a self-effectuating instrument. The detailed information developed during the preparation of the plan is part of the records of the Planning Board and is intended to form a basis for actively continuing planning in Northampton.

The study phases of this Comprehensive Plan and this summary report were prepared by Mr. Richard L. Ball, Jr., AIP, Project Manager, assisted by other members of our planning staff under his direction.

Very truly yours,

METCALF & EDDY, INC.

James R. Woglom

James R. Woglom, AIP
Vice President

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INTRODUCTION

Background

In March 1970, the Northampton City Council authorized its Planning Board to prepare a Comprehensive Plan for the city under the federal Comprehensive Planning Assistance Program. This program, commonly called the "701 Program," provides local communities with financial assistance of up to two-thirds of the cost of preparation of such plans. The remaining one-third is paid for by the community. The federal funds and the planning program are administered at the state level by the Massachusetts Department of Community Affairs.

The City Council authorization also included an appropriation of the City's one-third share of the funds necessary for preparation of the plan. The Planning Board then submitted its application for federal funds to prepare the Northampton Comprehensive Plan in two phases. Funds were approved in June 1970 for Phase I of the project, thus enabling Metcalf & Eddy, Inc., the City's planning consultant, to proceed with the work. Phase II funds were approved in July 1971.

This document contains the summary of the recommended Comprehensive Plan for Northampton. The 1990 physical plan of development is presented preceded by an analysis of data used in developing the plan and is followed by a description of the documents, procedures, and programs needed to put the plan into effect.

The Northampton Comprehensive Plan has been in the process of preparation during the last two years. During this period, individual elements of the Plan were formulated and preliminary reports were prepared and issued to the Planning Board. Meetings were held on an average of one per month with the Planning Board, the Citizens' Advisory Committee, interested citizens and city officials for purposes of discussion and review of the various plan elements and the preliminary reports. In addition, meetings were held with various city, regional, and state officials for purposes of data collection and program development. Through this planning process, the Northampton Comprehensive Plan was developed.

Purpose and Scope

The primary purpose of the Northampton Comprehensive Plan is to identify the physical, social, and economic resources of Northampton, to establish planning objectives for the community, and to present a physical plan consistent with the City's resources and objectives. In this manner, a framework has been planned for long-term physical development within which Northampton may realize certain social, environmental, and economic benefits, together with a quality of living and a more efficient use of its resources.

The report is divided into three main sections as follows:

Part I – Inventory and Analysis

Part II – 1990 Development Plan

Part III – Implementation Program

The Inventory and Analysis consists of a presentation and evaluation of problems and planning issues facing the community. The significant relationships of Northampton to other communities in the immediately surrounding area are identified. The results of detailed studies of existing land use, soil suitability for various land uses, physical features, existing and projected populations, economy, and housing are used as a basis for subsequent planning studies described in Part II.

Part II, the 1990 Development Plan, evaluates city facilities and needs relative to circulation, schools, recreation and open space, and city buildings. A statement of planning objectives, policies, and standards is presented. Finally, improvements in facilities are recommended to meet present and future needs to 1990. A future land use plan for 1990 is also recommended. This plan provides a policy of land development over the next twenty years. In addition, it provides a long-term framework for controlled growth over the next 25 to 50 years. The elements of the short-range future land use plan

are presented in such a manner as to indicate an interrelated pattern of development. In this way, future decisions regarding individual developments or financial appropriations can be made with some insight into what possible effects they might have on the City's overall long-range growth.

The final portion of the plan, the Implementation Program, presents the tools for implementing the land use policies and physical improvement recommendations of the Northampton Comprehensive Plan. These include city codes and ordinances including a zoning ordinance and map and subdivision regulations, governmental organization for planning implementation and a financial schedule contained within an improvements program.

AREA OF INFLUENCE

The purpose of this section of the report is to define the Northampton area of influence and to identify the special planning and development issues which affect the future of Northampton. The term "area of influence" refers to a group of municipalities which are interdependent and constitute a logical regional planning area.

For Northampton, we have selected both a regional area of influence and a local area of influence.

The selected regional area of influence is the area of jurisdiction of the Lower Pioneer Valley Regional Planning Commission (LPVRPC). This regional area is selected primarily because of Northampton's relationships with the major urban areas within this region, the total regional planning program which is being carried out, and the necessity of coordinating local planning in Northampton with the framework of regional planning.

The selected local area of influence is comprised of the municipalities of Williamsburg, Hatfield, Hadley, Easthampton, Westhampton, and Amherst.

Planning and Development Issues

Certain conditions in the areas of influence will affect the future of Northampton. Six conditions are identified as having major effects on local planning for Northampton. These are discussed individually below.

1. *Accessibility.* Recent construction of Route I-91 has resulted in major New England markets becoming readily accessible from Northampton. At the same time, travel time between Northampton and the Springfield metropolitan area has been reduced to about 30 minutes. As a result, overall improved accessibility to Northampton creates a greater demand for land for development for residential, commercial, and industrial purposes.

2. *Location.* Northampton's location in the Connecticut River valley will affect the future role of the city as part of its regional area. The Mount Tom and the East Mountain ranges extend generally in a north-south direction west of the Connecticut River. Just south of Northampton, the Holyoke range of hills runs east-west between the Mount Tom range and the Worcester County plateau. In effect, these physical characteristics of the land serve to restrain the expansion northerly of the Springfield-Chicoopee-Holyoke metropolitan area.

As a result, Northampton has developed a dual role of being the urban center for its local area of influence and an important satellite city within its regional area of influence. Both roles are considered in future planning for the city. Also, consideration is given to the fact that, as the local area of influence grows in importance, Northampton's importance within the local area of influence must be reconciled with that of Amherst.

3. *Connecticut River Basin.* Because of its advanced age, the Connecticut River has developed the typical meandering form of an old river. The elevation of the once deep river valley, through which the river flows down to the sea, has been raised by layers of silt deposited by the river over many centuries. A flat, alluvial plain, approximately 20 miles wide, has been created (in the area covered by this report) and as the river now slowly meanders down the valley it has formed many oxbows in flat areas making them subject to flooding.

Northampton is located in one such oxbow in which the east and southeast areas of the city are subject to serious annual flooding.

Significant proposals for the Connecticut River Basin have been set forth in a recent report by the Connecticut River Basin Coordinating Committee. National parks and other recreational uses have been proposed for the flood-prone areas. This regional issue is considered in reaching specific land use proposals for Northampton.

4. *Sand and Gravel Resources.* Many operative and abandoned gravel pit and sandpit operations are located in the sparsely developed areas of Northampton. They are situated primarily in the foothills of the Berkshire Hills in west Northampton close to existing roads.

It is most important to recognize the apparent extensiveness of the sand and gravel deposits. They are of regional significance as a natural resource. They are of local significance as a temporary user of land. Local policy must be established with respect to the utilization of these deposits and to the reclamation of the abandoned sites.

5. *Agricultural Land.* The area of land in Hampshire County used for agriculture has been declining at an accelerated rate, as illustrated in Table 1. A factor affecting this decline is the trend to 100 percent valuation of real estate for the highest economic use. This has tended to force farm land into development which is better able to afford the resulting higher taxes.

TABLE 1. TRENDS IN AGRICULTURAL LAND USE, HAMPSHIRE COUNTY

Year	*Total land in farms*	*Percentage change*
1950	178,719	-
1954	150,355	−15.9
1959	123,347	−17.6
1964	94,049	−23.8

Source: U. S. Census of Agriculture.

Some of the best farm land in the region is located in Northampton along the Connecticut River in the flood plain area. Competition for this land comes from farmers, developers, conservationists, and recreation planners. Our planning for Northampton must consider agricultural uses as well as other uses in the long-range plan for the city.

6. *The Regional Education Community.* The educational institutions located in the regional and local areas of influence are having and will continue to have various degrees of effects on Northampton. Within a 20-mile radius of Northampton are 16 colleges and university and 7 private secondary schools. These colleges and universities represent a faculty of approximately 2,900 and a resident enrollment of 21,000. Additional students live off campus or are day students. Within a 10-mile radius of Northampton, the educational institutions represent a faculty of approximately 2,000, and a resident student enrollment of about 17,000. The effect of these numbers of university oriented people is prevalent today in Northampton. Housing, shopping, cultural activities, university resources – all to some degree play a part in the community-university relationship which exists today.

Projections are to increase the University of Massachusetts enrollment, the major educational institution in the area of influence to 25,000. Obviously, pressures will develop for certain economic, social, and physical changes in Northampton in orientation to these institutions. As a result, definite policy must be adopted in Northampton which realistically reflects these pressures and the attitudes of the local community towards these pressures.

EXISTING LAND USE

In July 1970, a field survey was made by Metcalf & Eddy of all existing land uses in Northampton. The land uses were recorded, mapped, and tabulated. The acres of land in each land use category together with percentages of land in each use are shown in Table 2.

The existing land use pattern is characterized by contrasting urban and rural patterns. The urban pattern is located north of the Mill River running westerly from downtown Northampton to Florence and Bay State villages. By direct contrast, the rural pattern is scattered along various roadways outside the urban areas and consists primarily of single-family residences and farmland. Only in Leeds village and the Burts Pit Road and Ryan Road areas is this rural pattern broken by suburban development.

Various factors have affected land use patterns in the past.

1. Flood-plain and flood-prone lands along the Connecticut River, the Oxbow, and the Mill River have affectively checked the spread of urban development while remaining primarily as valuable farming land.

2. The large tracts of public and quasi-public land, including the Northampton State Hospital, Smith College, Arcadia Wildlife Sanctuary, Smith's Agricultural School, Look Park, Northampton reservoir watershed land, the Veterans Administration Hospital have contributed to the confinement of the urban development pattern.

3. Transportation systems – first the railroad and more recently the highways provided the access which attracted development along their routes.

4. Physical soil characteristcs and terrain have influenced the location of development attracting development to the more suitable land.

TABLE 2. EXISTING LAND USE, 1970

Use	Acres	*Percent of developed*	*Percent of total*
Developed land			
Single-family	1,680	27.0	7.36
Two-family	170	2.7	0.74
Multifamily	90	1.4	0.39
Apartments	10	0.2	0.04
Other Residential	110	1.8	0.48
Commercial	220	3.5	0.96
Wholesale, Warehouse, and Storage	80	1.3	0.35
Manufacturing	160	2.6	0.70
Nonmanufacturing Industrial	420	6.8	1.84
Roads	1,160	18.7	5.08
Extractive	230	3.7	1.01
Public and Quasi-public Buildings	570	9.2	2.50
Public and Quasi-public Open Space	1,310	21.1	5.74
Subtotal – Developed	6,210	100.0	27.20
Undeveloped land			
Agriculture	5,590	...	24.48
Water	634	...	2.78
Vacant	10,400	...	45.55
Subtotal – Undeveloped	16,624	...	72.80
Total	22,834	...	100.00

Source: Measurements from the existing land use map.

Future development patterns should likewise reflect these factors. Soil characteristics are the least flexible in that they are fixed in location. Therefore, special attention should be given to soil suitability especially with respect to residential densities in unsewered areas and future conservation and open space areas. In addition, extensive deposits of sand and gravel are resources which must be incorporated into the future land use planning.

Northampton contains a total of 22,200 acres of land. Only about 27 percent of this land is developed. Extensive acreage exists for future development of various types of uses in varying amounts and locations. Future trends in land use should depend to a great degree upon future policies and actions of the city in response to land use demands. Recent trends have been primarily the filling in of the urban land use pattern and initiation of a suburban residential pattern southwest of the Mill River. In addition, commercial decentralization from downtown Northampton to highway-oriented locations has been occurring. In the future, the following demands appear likely which could bring about serious problems for the city unless positive measures are taken to provide direction and control.

1. The demand for further decentralization of commercial activity from downtown Northampton to shopping centers.

2. The demand for more suburban residential development.

3. The demand for multifamily residential development in response to the proximity of the colleges and university in the Northampton area.

4. The demand for sand and gravel from the extensive deposits in Northampton.

It is these, as well as other demands identified and quantified elsewhere in this report, which are considered in developing Northampton's future land use policies.

LAND SUITABILITY

Soil characteristics are important physical features which influence land use patterns and trends. The fineness or coarseness of the soil, the amounts of gravel, rocks, and boulders, and the depth at which these features are found, all help to influence the most appropriate land use of the particular soil.

The most recent comprehensive soil survey covering all of Northampton is the 1928 *Soil Survey of Hampden and Hampshire Counties, Massachusetts* by the United States Department of Agriculture.* The 1928 soil study was primarily concerned with agricultural uses of soil. However, the soil descriptions in the 1928 report along with topographic mapping are sufficient to determine general soil suitability for development.

Based on this survey, five land suitability classifications have been made, each designating a degree of limitation in development capabilities. The five land suitability classifications and their descriptions are as follows:

Class I — *Generally slight limitations in development capabilities.* This class consists of soils with good drainage characteristics which are generally free of stones and boulders. Slopes are slight. This class is very suitable for development including that relying on on-lot sewage disposal systems.

Class II — *Generally moderate limitations in development capabilities.* This class consists of soils with many of the same characteristics as Class I except that slopes are slightly steeper and the soils may contain some rocks and boulders.

Class III — *Generally moderate limitations in development capabilities where public sewerage is available.* This class is important in planning public sewerage service areas. Generally drainage is poor and a clay hardpan layer is likely at a shallow depth so that on-lot sewage disposal systems would not function properly.

*Funds have been appropriated by the City Council for the preparation of an Operational Soils Survey for Northampton. The results of this more detailed study should be incorporated into the Northampton Comprehensive Plan upon completion.

Class IV — *Generally severe limitations in development capabilities.* This class consists of soils with poor drainage characteristics, extensive amounts of rocks and boulders, and steeper slopes. Areas with these soils are generally more expensive to develop.

Class V — *Generally unsuitable for development.* This class consists of soils which are wet during most seasons of the year and have extremely poor drainage characteristics. These soils are best left undeveloped.

Figure 1 shows the generalized land suitability pattern in Northampton. Also shown are the limits of the Connecticut River flood plain and the Mill River flood-prone area. The amount of land in Northampton in each land capability category is indicated in Table 3.

TABLE 3. LAND SUITABILITY

Class	*Estimated acres*	*Estimated percent of total land area*
I. Generally slight limitations in development capabilities(1)	5,310	23.9
II. Generally moderate limitations in development capabilities(1)	3,595	16.2
III. Generally moderate limitations in development capabilities where public sewerage is available(1)	4,685	21.1
IV. Generally severe limitations in development capabilities(1)	4,490	20.2
V. Generally unsuitable for development(1)	450	2.0
Flood plain and flood-prone land	3,670	16.6
Total	22,200	100.0

1. Excludes land within flood plains of the Mill River, the Oxbow, and the Connecticut River.

Source: Measurements from Figure 1, Land Capabilities.

Fig. I

MASTER PLAN

NORTHAMPTON, MASSACHUSETTS

LAND CAPABILITIES

Metcalf & Eddy, Inc. Engineers & Planners

Boston New York Palo Alto

WILLIAMSBURG

HATFIELD

WESTHAMPTON

EASTHAMPTON

HADLEY

LEEDS

LAUREL PARK

FLORENCE

BAY STATE

Oxbow

Connecticut River

N

0 1200 2400 3600 4800

Development Capability

Class I

Class II

Class III

Class IV

Class V

Implications of Soil Suitability on Future Development

Future development patterns should reflect the physical characteristics of the soil. Therefore, based on the soil suitability mapping and existing land use patterns, certain implications are noted below concerning residential densities, industrial and commercial development, and conservation.

Residential Density. The residential densities in Northampton vary greatly. The range of residential densities in the urbanized areas of Northampton is between two and 30 families per residential acre of land. Residential densities outside the urban area vary from less than two to four families per acre.

One of the major factors which should affect future residential densities are soil characteristics. This especially true where municipal water and sewer service is not available. Therefore, for future land use planning purposes, we have developed standards for residential lot sizes in single-family areas where private on-lot utility systems are to be used. These standards, reflecting soil percolation rates and the timing of the provision of municipal utility service are presented in Table 4.

Industrial and Commercial Locations. The influence of soil on locations for the manufacturing industry and commercial establishments is not as significant as in the case of residential development. This is because industrial developers are generally willing to pay more for site development as long as other conditions such as excellent accessibility are available. However, as a basis of industrial site selection, the accessible site with good soil conditions would be more competitive than an accessible site with poor soil conditions.

The extractive industry is presently active in Northampton in association with sand and gravel deposits. On the basis of the soil survey these deposits appear to be extensive and could be a most valuable resource. This type of industrial site must be considered in the future land use pattern as an initial use and as an area for reclamation.

Conservation Areas. The determination of future conservation areas is affected by soil suitability, although this is not the sole influencing factor. The soils classified as unsuitable for development are the swamps and the muck and peat soils which are wet during part or all of the year and provide a suitable habitat for wildlife. Similarly the flood plain and the flood-prone areas are valuable open areas which are important to the city's overall conservation program. In the past, agricultural acreage has provided a prime component of open land. Farming should thus be encouraged to the extent feasible as a means of preserving open space.

TABLE 4. RECOMMENDED MINIMUM RESIDENTIAL LOT SIZES FOR SINGLE-FAMILY DWELLINGS WITH ON-LOT SEWAGE DISPOSAL SYSTEMS

Percolation rate, min per in.	*Required seepage area, sq ft per bedroom*	*Minimum lot sizes, sq ft*		
		Class A(1)	*Class B*(2)	*Class C*(3)
For areas with public water supplies				
5 or less	94	10,000	15,000	15,000
6-10	125	15,000	15,000	20,000
11-20	220	20,000	25,000	30,000
21-30	250	20,000	30,000	35,000
For areas likely to remain rural with on-lot water supplies(4)				
5 or less	94			40,000
6-10	125			55,000
11-20	220			60,000
21-30	250			60,000

1. Likely to have public sewers within 15 to 20 years.
2. Likely to have public sewers within 25 to 30 years.
3. Not likely to have public sewers, being rural areas.
4. Likely to have public water supplies within 20 years, and hence some of the space originally reserved for suitable isolation of the well can eventually be used for expansion or replacement of the leaching field.

POPULATION

The purpose of this study is to estimate Northampton's 1990 population and its expected pattern of change over the next twenty years. These estimates are based on our analysis of past changes in population size and age composition, past trends in migration patterns and natural increase rates, and our identification of factors likely to affect future population trends. After presentation of our estimates, the likely implications of such population change are presented.

Northampton's total population statistics are significantly affected by six major institutions located in Northampton. These are Smith College, Northampton Junior College, Northampton State Hospital, the Veteran's Administration Hospital, Clarke School for the Deaf, and the Hampshire County Sanitorium. They have housed approximately one-fifth of the total city population over the past 20 years. Therefore, for purposes of this study, the total population for Northampton has been divided into the resident population, or those people who occupy housing in Northampton other than that owned by the institutions, and the institutional population.

Population Size and Composition

The change in the resident and institutional population since 1950 is shown in Table 5.

The Northampton resident population has changed very slightly over the past 20 years. However, certain significant changes have been occurring in certain age groups. In the age group 0 to 14 years, there have been significant increases in the population growing from a total of 5,196 in 1950 to 7,132 in 1965. On the other hand, the combined age groups 25 to 44 years, or the parents of the children 0 to 14 years, decreased from 6,865 in 1950 to 4,870 in 1965. These trends indicate rather drastically that there is a distinct shift from a large unmarried segment of the working age population and small families to more and larger families. Between 1965 and 1970, the resident population 25 to 44 years, continued to decline slightly to 4,764, while population 0 to 14 years reversed its trend and declined to 6,106. This most recent trend reflects the significant reduction in the birth rate noted below.

TABLE 5. RESIDENT AND INSTITUTIONAL POPULATION CHANGE, 1950 to 1970

Year	*Resident population*		*Institutional population*	
	Number	*Change*	*Number*	*Change*
1950	23,386	---	5,677	---
1955(1)	23,546	+160	5,805	+128
1960	24,106	+560	5,952	+147
1965(1)	24,412	+306	6,045	+ 93
1970	24,145	-267	5,519	-526

1. The 1955 and 1965 state census of population figures was adjusted to the federal census base because of the differences between the state and the federal census techniques. The distinction between the two techniques is basically one of residency. The state census tabulates according to the legal residence of persons at the time of the census taking, whereas the federal census technique is based on the actual location of the individual at the time of the taking. These differing enumeration techniques are most noticeable on the population aged 15 to 24 years. This is the age group where the individuals are apt to be in college or in the armed services. Thus, they would be counted at their home by the state census, but at the college or military base by the federal census.

Sources: U. S. Census
Massachusetts Decennial Census
Northampton Junior and Smith Colleges
Northampton State and Veteran's Administration Hospitals
Hampshire County Sanitorium.

Components of Population Change

Population change in any community is the result of two factors, *migration* – the movement of people into or out of a community, and *natural increase* – the excess of births over deaths.

Migration. Table 6 shows the effect of migration on Northampton's resident population changes since 1950.

TABLE 6. FACTORS OF RESIDENT POPULATION CHANGE, 1950 TO 1970

	Change		*Numerical change by*	
	Number	*Percent*	*Natural increase*	*Net migration*
1950-1955	160	0.7	1,107	–947
1955-1960	560	2.3	1,254	–694
1960-1965	306	1.3	975	–669
1965-1970	–267	–1.1	387	–654

Sources: Massachusetts Department of Health
U. S. Census
Massachusetts Decennial Census.

The trend from 1950 to 1970 has been a decreasing rate of out-migration. This appears to be a slowing.

The migration trends by age groups through 1965 show a decreasing out-migration of the preschool age children, an increasing in-migration in the school age group, and an increase in the out-migration of the 45 to 64 and the 65 and over age groups. Between 1965 and 1970, these trends changed as shown in Table 7.

TABLE 7. MIGRATION TRENDS BY AGE GROUP

Age group	*1950-1955*	*1955-1960*	*1960-1965*	*1965-1970*
Under 5	–173	–171	–102	+ 19
5-14	–136	+267	+278	–257
15-24	–442	–287	+ 97	–770
25-44	+ 24	–354	+129	– 35
45-64	+134	–168	–410	+408
65 and over	–354	+ 44	–661	– 19
Total	–947	–694	–669	–654

Source: U. S. Census
Massachusetts Decennial Census
Estimates by Metcalf & Eddy.

Table 8 shows the trends in allocated births* and deaths and the natural increases in Northampton population by five-year periods since 1950. Whereas the number of deaths has remained fairly constant, the number of births has been decreasing significantly especially in the last five years. The significance of this birth trend is more evident when the number of births is compared to the population of child-bearing age (15 to 44 years). Between 1955 and 1960, there were 60.7 births per year per 1,000 population of child-bearing age as compared to 37.3 for the period 1965 to 1970.

TABLE 8. NATURAL INCREASE TRENDS, 1950 to 1969

Period	*Allocated births*	*Allocated deaths*	*Natural increase*
1950-1954	2,525	1,418	1,107
1955-1959	2,622	1,368	1,254
1960-1964	2,431	1,456	975
1965-1969	1,834	1,447	387

Sources: Secretary of State, Annual Reports.
Massachusetts Department of Health.

Population Forecasts to 1990

Changes in Northampton's population in the future will be the result of many factors and conditions now existing both within Northampton and outside of the city, but within the neighboring region. Specifically, the situations which could affect future growth are:

1. The existing highway network traversing Northampton, principally Route I-91 and Route 9, provides excellent access for prospective residents for commuting, and for industry's transportation needs. This could tend to reverse much of the present migration pattern.

2. The regional educational community, especially the University of Massachusetts, continues to grow and therefore affects the overall migration into the region. Northampton could participate in this growth to a very great degree or only very slightly.

*Indicates births to Northampton residents regardless of where the birth actually occurred.

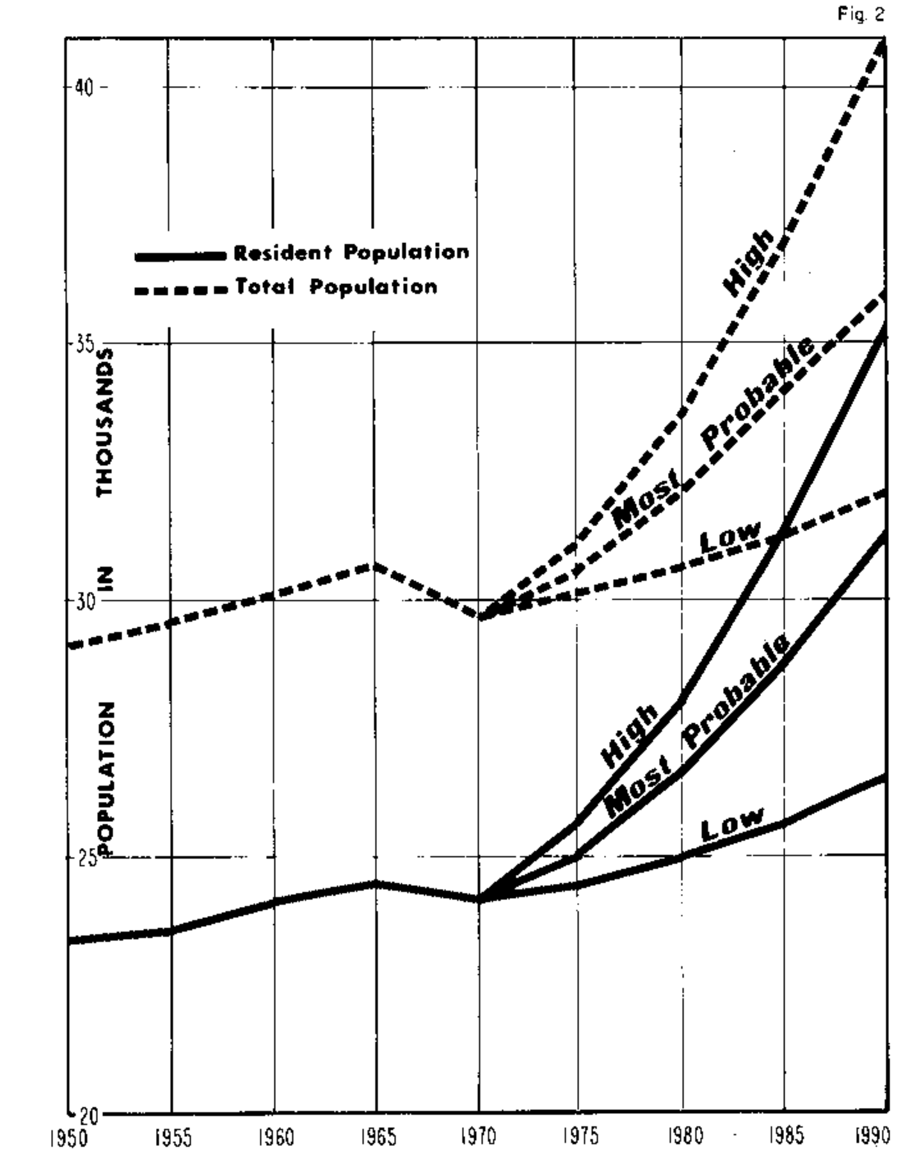
Three forecasts are made for the resident population – a most probable estimate reflecting the most likely migration pattern and natural increase trends, and high and low estimates reflecting upper and lower limits on migration patterns and natural increase trends. For purposes of calculating the total population, we have assumed a constant level of 5,600 for the institutional population.

Table 9 shows the most probable population estimate along with the high and low estimates. They are all shown graphically on Figure 2.

TABLE 9. ESTIMATED FUTURE RESIDENT POPULATION, 1970 TO 1990

Year	*Low forecast*		*High forecast*		*Most probable forecast*	
	Number	*Percent increase*	*Number*	*Percent increase*	*Number*	*Percent increase*
Actual						
1970	24,145	–1.1	24,145	-1.1	24,145	–1.1
Estimated						
1975	24,460	1.3	25,580	5.9	25,020	3.6
1980	25,000	2.2	27,900	8.3	26,740	6.9
1985	25,620	2.5	31,300	12.2	28,690	7.3
1990	26,510	3.5	35,330	12.9	31,290	9.1

Sources: U. S. Census
Massachusetts Decennial Census
Estimates by Metcalf & Eddy.



POPULATION TRENDS AND FORCASTS 1950 –1990

Table 10 shows the estimated composition of Northampton's population by five-year increments from 1970 through 1990.

The estimated future population changes have certain implications concerning Northampton's future development. The effect of the anticipated population growth pattern on employment, needed community facilities and services, and other related planning matters is examined in the appropriate chapters of this comprehensive plan.

TABLE 10. ESTIMATED FUTURE RESIDENT POPULATION AGE COMPOSITION, 1970 to 1990

	Age group						
	Under 5	*5-14*	*15-24*	*25-44*	*45-64*	*65 and over*	*Total*
1970							
Number	1,793	4,313	3,899	4,764	6,089	3,287	24,145
Percent	7.4	17.9	16.1	19.8	25.2	13.6	100.0
1975							
Number	2,200	4,390	4,515	6,010	5,070	2,835	25,020
Percent	8.8	17.5	18.1	24.0	20.3	11.3	100.0
1980							
Number	2,425	4,715	5,340	7,430	4,560	2,270	26,740
Percent	9.1	17.6	20.0	27.8	17.1	8.5	100.0
1985							
Number	2,855	5,360	5,135	8,830	4,260	2,250	28,690
Percent	10.0	18.7	17.9	30.8	14.8	7.8	100.0
1990							
Number	3,180	6,080	5,280	9,930	4,530	2,290	31,290
Percent	10.2	19.4	16.9	31.7	14.5	7.3	100.0

Source: Estimates by Metcalf & Eddy.

HOUSING

The housing study of the City of Northampton is undertaken to provide a basis for the adoption or revision of municipal policies and regulations which affect public and private housing in the city. The study entails an inventory and evaluation of the existing housing stock, including subsidized housing, an analysis of city codes which relate to housing and their enforcement, and an estimate of housing demands. On this basis, housing policies are recommended along with a work program to implement them.

Housing Inventory

In July 1970, Metcalf & Eddy conducted a field survey of the exterior of all housing in Northampton. The number of dwelling units and housing structures by type were counted and the results are tabulated in Table 11. Housing structures are plotted by type on Figure 3.

TABLE 11. HOUSING SUPPLY

	Single-family	*Two-family*	*Multifamily, (three units or more)*	*Seasonal and mobile homes*[1]	*Total*
Structures	4,310	883	464	17	5,674
Dwelling units	4,310	1,766	2,847	17	8,940

1. Does not include camp housing such as Laural Park.

Source: Metcalf & Eddy, Inc., field survey, July 1970.

New housing construction over the past decade has fluctuated mildly, but the overall trend has been upward. In 1960 building permits were issued for 43 dwelling units, whereas in 1970 permits for 159 dwelling units were issued. Mostly single-family homes have been constructed. Multifamily construction has been rather sporadic. However, since 1963, building permits have been issued annually for an average of 47 apartment units in multifamily structures.

Housing conditions in Northampton are summarized in Table 12, and conditions are generally satisfactory.

TABLE 12. CONDITIONS OF HOUSING STRUCTURES

	Single-family(1)		Two-family		Multifamily		All structures	
Condition(2)	*No.*	*Percent*	*No.*	*Percent*	*No.*	*Percent*	*No.*	*Percent*
Standard	3,763	87	636	72	312	67	4,699	83
Intermediate	531	12	234	27	119	26	879	16
Substandard	33	1	13	1	33	7	79	1
Total	4,327	100	883	100	464	100	5,674	100

1. Mobile homes are included in single-family category.
2. See Appendix A for detailed explanation of condition terms.

Source: Metcalf & Eddy, Inc., field survey of building exteriors, July 1970.

However, more important than individual housing conditions are the locations of concentrations of substandard or intermediate housing which identify the existence of or the potential for blight.

For purposes of this study, a concentration of housing where more than 20 percent of the residential structures are substandard is a structurally blighted area. A concentration of housing where at least 30 percent of the residential structures are classified as intermediate and substandard, but where less than 20 percent are substandard is a potentially blighted area.

In addition to structural blight, the living environment may be adversely affected by certain conditions in the area. These conditions, called environmental blight, include crowding of buildings, buildings which are outdated architecturally and functionally, buildings where uses are adverse to each other, and traffic, noise, and air pollution.

Figure 3 shows areas of actual and potential structural and environmental blight.

Subsidized Housing in Northampton

Subsidized housing or housing in which government aid is involved in Northampton has been developed by the Northampton Housing Authority, nonprofit and limited dividend corporations, and private developers. Each project existing in the city is located on Figure 3. Information on the type of housing and the number of units is also shown.

The programs of the Housing Authority appear to have emphasized the elderly. There is a need for housing for low income persons and families of all ages. The Authority should extend its efforts towards low-income families. In addition, the Housing Authority should expand its role to one of community leadership in housing-related matters. It should be the major source of housing data, including demand estimates, and should work closely with nonprofit housing developers in the city. (See recommendations on Government Organization in Phase III of this report.)

The HUD 235 housing presently represents the only major type of housing being developed by nonprofit or private developers. This housing is satisfying a need for lower incoming housing.

Codes and Code Enforcement

The Housing and Building Codes and their enforcement procedures were reviewed in relation to their affect on housing in Northampton. The city recently adopted the BOCA (Building Officials Conference of America) Building Code; a code enforcement office has been established; and a pilot housing code enforcement program has been initiated with the intention of subsequently participating in the federally subsidized concentrated code enforcement program. Therefore, the city's current codes and code enforcement program are properly directed toward developing, maintaining, and improving the conditions of the housing stock in Northampton.

Market Analysis

This market analysis is undertaken to provide information on the quantity of the housing types which are in immediate demand and would be in long-range demand in Northampton. Consideration is given to the impact of college housing needs and Route I-91 in estimating the long-range demands.

Fig 3

MASTER PLAN

NORTHAMPTON, MASSACHUSETTS

HOUSING

Metcalf & Eddy, Inc. Engineers & Planners

Boston New York Palo Alto

1. The demand for low- and moderate-income housing generated by Northampton residents be satisfied first.

2. The existing housing stock be utilized to the fullest.

3. Any new low- and moderate-income housing be located on sites approved by the city and selected in accordance with criteria developed as part of this housing study.

Program:

1. The Housing Authority, as the major housing body in the city, should:

   a. Emphasize and give top priority to public housing programs which utilize the rehabilitation of existing structures. Participation in three such programs should be considered at this time: federal Leased Housing and Acquisition and Rehabilitation programs, and the state Rental Assistance and Low Rent Family Housing programs. Programs providing for new construction should also be pursued.

   b. Coordinate their efforts with nonprofit and private developers of low-income housing to encourage rehabilitation of existing dwellings. Programs available to such developers are federal Leased Housing, Rent Supplement, Rehabilitation for Home Ownership, and Rehabilitation for Rental Housing.

   c. Develop a plan of sites for new subsidized housing based on the criteria established in this report and make the plan available to nonprofit and private developers of low-income housing.

   d. Continually generate data and assess the housing market to determine housing demand. Types of data should include those collected herein and 1970 Census block data when available.

   e. Actively seek to inform citizens and landlords of programs available to them, and encourage the all-important aspect of citizen participation in housing.

College-Related Off-Campus Housing Policy. Accommodate the off-campus housing needs of faculty, administration, staff, and students of nearby colleges without substantially reducing the supply or inflating the costs of housing to existing Northampton residents.

Program:

1. Establish official lines of communication between the Housing Authority and development-oriented offices of local colleges, and utilize this mechanism to keep the city informed of pending housing policy changes and housing needs, particularly regarding student housing.

2. Through local realtors and college housing offices, establish lists of housing available to new faculty and administration and encourage their location in Northampton.

Residential Land Use Policy. Regulate the efficient and orderly use of residential land, encourage the creation of a pleasing residential environment, and make optimum use of existing environmental resources.

Program:

1. Adopt the recommended land use plan entitled "controlled growth plan" and utilize it as the official policy on development.

2. Immediately, adopt the recommended zoning ordinance to implement the land use plan, including provisions for cluster zoning, planned unit development, and other planned residential, commerical, and industrial development.

ECONOMY

The purpose of this chapter of the Northampton Comprehensive Plan is to identify the present economic activities in Northampton, to analyze the most recent economic trends, and to determine Northampton's economic resources and future economic growth prospects. The findings of this chapter are then used in the formulation of the future policy of land development as expressed in the Future Land Use Plan for Northampton.

Economic Sectors

Table 14 shows the changes in covered employment* in the city between 1955 and 1968. Manufacturing has been and continues to be the major employer in Northampton. Although the covered manufacturing employment decreased between 1955 and 1965, increases between 1965 and 1968 were sufficient to achieve a significant long-term increase.

Wholesale and retail trade is the second most important economic sector in Northampton. Between 1955 and 1968 covered employment in this sector grew significantly. However, the number of firms has slowly but steadily decreased since 1955. This trend toward fewer but larger retail establishments is occurring throughout New England as well as the country as a whole.

A further indication of the conditions in the retail sector is presented in Table 15. This table indicates that in 1958 per capita sales in Northampton were only slightly above state averages, but by 1967 they were considerably higher than the state average.

The service sector is the third most important economic sector with approximately nine percent of the covered employment. Surprisingly, between 1965 and 1968 the service sector actually declined in employment, in contrast to increases in real service receipts and in the retail sector.

*Covered employment includes all jobs insured under the State-Federal Unemployment Compensation Program. Virtually all manufacturing jobs are covered and most nonmanufacturing jobs are covered, the major exceptions being self-employment such as agriculture and nonprofit activities such as government.

TABLE 14. CHANGES IN COVERED EMPLOYMENT, 1955 TO 1968

Economic sector	*Number of employees*[1]				*Percent change, 1955 to 1968*
	1955	*1960*	*1965*	*1968*	
Agriculture	26	45	43	31	+19.2
Mining	–	–	7	6	Not available
Construction	318	266	393	422	+32.7
Manufacturing	3,024	2,982	2,818	3,650	+20.5
Transportation, communications, utilities	640	416	473	543	–15.4
Wholesale and retail trade	1,767	1,857	2,137	2,332	+32.0
Finance, insurance, real estate	196	209	246	269	+37.2
Services	746	816	782	732	– 1.9
Total	6,717	6,591	6,899	7,985	+18.9

1. Covered employment for the month of November.

Source: Massachusetts Department of Employment Security.

TABLE 15. COMPARATIVE TRENDS IN PER CAPITA RETAIL SALES[1]

Year	*Total Northampton retail sales*	*Per capita retail sales*	
		Northampton	*State*
1958	$38,200,000	$1,280	$1,220
1963	46,514,000	1,550	1,280
1967	55,210,000	1,850	1,390

1. All retail sales were adjusted to the 1957-1959 Consumer Price Index for Boston.

Source: U. S. Census of Business.

The trends in Northampton's service receipts are shown in Table 16 and are compared to the state figures. Although service receipts per capita, based on a constant dollar index, have been increasing in Northampton, they have not increased at as great a rate as occurred throughout the state.

The city, county, and federal governments presently account for about 1,100 employees. Although these are not covered employees, these jobs are most significant in the overall employment picture for Northampton.

Although agriculture appears to be relatively insignificant as an employer, it is most significant as a land use. Based on our 1970 field survey, we estimate that 5,590 acres of land or 25 percent of Northampton's total land area are used by agriculture.

TABLE 16. COMPARATIVE TRENDS IN PER CAPITA SERVICE RECEIPTS(1)

		Per capita service receipts	
Year	*Total Northampton service receipts*	*Northampton*	*State*
1958	$3,750,000	$126	$170
1963	4,040,000	135	204
1967	5,540,000	186	246

1. All service receipts were adjusted to the 1957-1959 Consumer Price Index for Boston.

Source: U. S. Census of Business.

Major Business Centers

Four major business centers exist in Northampton. These are:

1. The central business district (CBD)

2. King Street-North King Street

3. Florence

4. Green Street.

Although commercial activities occur outside of these centers, the majority of the business land uses is located in these four centers.

In recent years the CBD, the most important commercial area in the city, has been receiving increasingly greater competition from other areas. In particular, north of the CBD on King Street and North King Street there have developed several shopping centers and a strip of highway oriented businesses.

The main competition is the large general merchandise stores. The question for the CBD is whether it wishes to confront these stores directly or supplement them by developing service and specialty stores.

Central Florence is the largest neighborhood shopping center in Northampton. Florence supplements the CBD by providing service and limited retail stores for its immediate area. This area does not present any real competition to the CBD.

Green Street consists primarily of women's apparel and book and stationery stores catering to nearby Smith College. The variety of stores tends to deny the CBD of some sales in these specialized categories from the college students.

Economic Resources and Development Potential

The following are Northampton's major economic resources for future economic development of the city.

1. Interstate highway accessibility, directly via Route I-91 and indirectly by Route I-90.

2. Available suitable land, including seven sites containing 720 acres recommended for future industrial and commercial development.

3. Reasonable supply of labor and markets within 25 miles including an estimated work force of 70,000 persons.

4. A sound financial status consistent with the high level of community facilities and services.

5. Economic development promotional vehicles including such groups as the Greater Northampton Chamber of Commerce, the Northampton Industrial Realty Development Corporation, the Northampton Redevelopment Authority, and the Mayor's Committee on Industry.

Economic Forecasts

Table 17 shows the employment levels and land requirements projected from current data for overall economic needs of Northampton by 1990. Our estimates are based on the city's continuing as a regional shopping center but receiving increased competition from the Amherst area. Our estimate of industrial growth over the next 20 years is based on the continuation of the higher rates which were evident in recent years as long as community resources and promotion remain in their favorable competitive position.

TABLE 17. ESTIMATED 1990 EMPLOYMENT LEVELS AND ECONOMIC BASE LAND REQUIREMENTS

	Present (1968)	*1990 projections*	
Economic sector	*Covered employment*	*Covered employment*	*Land area, acres*
Manufacturing	3,650	5,000	250-350
Wholesale and retail trade	2,332	3,300	100-150
Services	732	1,300	270-320
Other sectors(1)	1,271	1,700	100-140
Total	7,985	11,300	720-960

1. Does not include the agriculture and government land and employment forecasts.

Sources: Massachusetts Division of Employment Security.
Estimates by Metcalf & Eddy.

Industrial and Commercial Site Survey

This section presents the findings of our survey of Northampton for major sites for possible future industrial and commercial development. Twelve major sites were selected for evaluation. Each site was evaluated according to 16 specific factors considered most important to potential users in selecting specific sites for development. These 16 factors are:

A. Size
   1. Present
   2. Expansibility

B. Physiography
   3. Soil limitations for development
   4. Slope
   5. Drainage

C. Public Utilities
   6. Water
   7. Sewerage
   8. Gas
   9. Electricity, 3 phase

D. Access
   10. Highway
   11. Railroad
   12. Public transportation

E. Miscellaneous
   13. Cost of development
   14. Fire protection
   15. Zoning
   16. Existing land use.

Of the twelve sites, only seven are recommended for inclusion in the 1990 land use plan for Northampton. The recommended sites are shown on Figure 4.

Fig. 4

MASTER PLAN

NORTHAMPTON, MASSACHUSETTS
POTENTIAL COMMERCIAL AND INDUSTRIAL SITES

Metcalf & Eddy, Inc. Engineers & Planners Boston New York Palo Alto

January, 1971

Existing Commercial Site (Retail and Service)

Existing Industrial Site

Potential Industrial/Commercial Site Recommended for Future Development

FUTURE LAND USE AND MAJOR THOROUGHFARE PLAN

The future land use plan for a community is an expression of the community's long-range policy of development. As such, it must be based on the community's conception of its long-range goals and it must bear a practical relationship with the major transportation network which is necessary to serve development according to the plan. This chapter first presents a statement of Northampton's planning and development goals and policies. Then, two possible future land development policies are presented, the present development policy as expressed under the existing zoning and an alternative to the present development policy entitled "Controlled Growth Plan." The implications of future development according to each alternative are discussed and compared. Finally, a plan is selected as the long-range land development policy for Northampton.

Planning and Development Goals and Policies

Planning and development goals and policies provide a guide for the future growth of Northampton. These long-range goals and policies evolved from the community attitude survey*, discussions with the Planning Board and Citizens' Advisory Committee, findings from the inventory studies of this Comprehensive Plan and a professional assessment of what direction development of the city should follow.

PHYSICAL GOAL – Create an environment consistent with the needs and desires of Northampton residents which will maximize the potential of the land without destroying the natural amenities.

Policies on Physical Development

1. Consider land as a limited natural resource, restrict the development of unsuitable land, and use the land for the purposes to which it is best suited and reasonable.

2. Promote a suitable change in land use over time by encouraging appropriate land reclamation and by controlling present land use in light of future reuse.

3. Treat open space as an essential element of the community, provide an appropriate amount distributed throughout the city, and use these areas for recreation, conservation, groundwater storage, flood management, wildlife preservation, and the control of development.

4. Promote the implementation of the Mount Holyoke unit of the proposed Connecticut Historic Riverway.

5. Direct public and private efforts towards improving the quality of the Northampton environment, with the aim of eliminating water, air, noise, and esthetic pollution.

6. Regulate development so that it is attractive, has minimum adverse environmental effects, and does not abuse the land, air, or water resources.

7. Promote the coordination of development policies and plans of Northampton with those of the LPVRPC, in order that the city receive the benefits of regional planning.

8. Preserve significant areas of land for agricultural use.

9. Preserve and retain the scenic, scientific, and historical sites.

SOCIAL GOAL – Create an environment in which every Northampton resident, presented with maximum choice, can satisfy his basic needs.

Policies

1. Encourage and regulate the diverse development of Northampton, with the planned growth of commercial, industrial, institutional, and public use all in balance, and in proportion to the need of the residents.

2. On a community basis, promote and regulate a mixture of residential types by cost, density, and design in order to provide housing choice for existing and prospective Northampton residents.

*Carried out by the Planning Board and the Citizens' Advisory Committee in September 1970.

3. Provide diversity of choice in housing, employment, educational, religious, civic, and social facilities for all residents of Northampton.

4. Establish continuing programs to eliminate substandard housing and prevent further deterioration.

5. Provide a quality education for all youth and an environment that will stimulate learning.

6. Encourage and regulate a high quality of construction and a high level of architectural design in all public and private building.

7. Encourage citizen participation and understanding in planning in order that the citizen may influence the future of his environment.

ECONOMIC GOAL – Create a viable, diversified, and stable economy for the city.

Policies

1. Promote a policy of selective industrial expansion with the objective of attracting industries which will be the most beneficial to the community in terms of job opportunities, concern for the city, and tax return.

2. Promote the development of physically suitable sites for new business and industry which are compatible with the residential development pattern and utility service areas.

3. Promote the CBD as a civic, cultural, and specialty merchandising area.

4. Recognizing the stability and insensitivity to economic fluctuation of the industry of higher education, encourage and accommodate growth of the area colleges to the highest degree possible.

5. Promote the sound planning for residential, commercial and industrial development generated by the improved access created by Route I-91.

GOVERNMENTAL GOAL – Provide the highest possible level of public services and facilities consistent with the needs and financial capability of the city.

Policies

1. Balance the present requirements for improvements of public facilities on the basis of the priority system for overall compatible growth.

2. Adopt and ensure compliance with the recommended standards for improvements to and future construction of public facilities.

3. Schedule the construction of community facilities with the development of areas of the city so that they may be in proper location to their logical service areas.

4. Develop a balanced transportation system including streets, highways, and other appropriate facilities to provide for local and regional travel which is safe, efficient, and convenient.

Alternative Land Use and Major Thoroughfare Plans

Two possible future land development policies are presented – the present development policy as expressed under the existing zoning and an alternative to the present development policy entitled "Controlled Growth Plan." These are designated as follows:

Alternative I Major Growth Plan – the present development policy for the City of Northampton as expressed in the present zoning, and the plan which is guiding new development and will continue to guide new development as long as the present zoning remains in effect.

Alternative II Controlled Growth Plan – a development policy for the City of Northampton limiting the development primarily to filling out of presently developed urban and suburban area; new development at rural densities in undeveloped areas (or in clusters of suburban densities while maintaining the overall rural density); and redevelopment.

The alternative plans are presented on Figure 5. They show the allocated major land use areas and the major thoroughfare system which would probably be required to serve development according to the plan.

Major Thoroughfare Requirements. A major issue brought out in the development of the comprehensive plan was the possible relocation of Route 9 and road construction in general. Highways are directly related to local and regional development and as the extent of that development increases, so does the demand for highways and streets. It is important to view the Route 9 relocation within this context and to include the following information:

1. In 1969, the State Department of Public Works publicized alternative corridors for the possible relocation of Route 9 through Western Massachusetts including Northampton.

2. In 1968, the Lower Pioneer Valley Regional Planning Commission adopted a long-range regional development plan which included a possible relocation of Route 9 along a southern corridor through Northampton.

3. Because of these state and regional initiatives, a possible southerly relocation of Route 9 was included in preliminary proposals for the Northampton comprehensive plan.

4. However, the state has made no specific commitment on any route location through Northampton and the Massachusetts Department of Public Works announced on April 18, 1972 that "this department is not in the active planning stage for any relocation of Route 9 through Northampton."

5. The Regional Planning Commission states that this element of their plan is being reevaluated in light of current studies now underway on mass transit for the region.

6. The trend at local, state and federal levels is to strive for "balanced transportation systems" of which highways are only one element.

7. The comprehensive plan did not, under the terms of its contract, include a study of mass transportation alternatives to highways.

Our studies indicate that through traffic from Williamsburg through Northampton is not presently and is not projected to be of sufficient volume during our planning period to warrant the construction of a Route 9 bypass route. Therefore, the Route 9 issue is a local issue directly dependent on local land use policy and the effective implementation of that policy through the adoption of appropriate zoning.

Our studies further indicate that if the present land use policy (the policy expressed in Alternative I, the Major Growth Plan, shown on Figure 5), is continued, development could occur to an extent that would eventually require the construction of additional major roadways, one of which would be Route 9.

On the other hand, if the controlled growth development policy is adopted and implemented, such as that presented in Alternative II, the present roadway network with proper improvements would probably be sufficient to accommodate future travel demands.

In either case, no matter which land use policy is implemented, extensive development must occur in Northampton before the legitimate need for a relocated Route 9 anywhere in the city can be justified. It is not expected that development to this extent would occur before the latter part of our planning period or between 1985 and 1990.

Other Implications of Alternative Plans. Alternative I, the Major Growth Plan, and the policy of development presently in effect in Northampton, could conceivably allow the city to eventually grow to a population of 250,000 to 300,000, at full development or saturation*. Under such a plan, public water and sewerage facilities would be required throughout the entire city. Because of the very high population, the requirements for public facilities, such as schools, fire protection, police protection, recreation, streets and other public works would be extensive. Thus, the overall cost to the city government would be great. However, the costs per capita would tend to be related to the extent of a nonresidential tax base which would be developed as part of this plan. In order to achieve a reasonably satisfactory environment under this plan, it would be necessary

*This term applies to the theoretical capacity of a city or town if each parcel of land housed the maximum number of family units possible under the zoning. It is in no way a prediction of population at any time in the future.

to purchase significant amounts of open space where control under zoning is not feasible. Zoning changes also would be required in terms of the adoption of the flood-plain zoning.

Alternative II, the controlled growth plan is a more restrictive development plan which could conceivably allow the city to eventually grow to a population of 60,000 to 75,000 at full development or saturation. The requirements for public facilities would be limited. Although the public water system would be required eventually throughout the city, the public sewerage system could be limited especially in the southwestern portion of the city. Under this plan the total costs for municipal facilities and services would be the lower. Per capita costs might also be lower if the use of cluster development is properly carried out, and the city is able to adopt and enforce the required zoning. This latter requirement for changing the zoning is critical to the success of the alternative and would probably be the most difficult step in implementing this policy. In other words, the less extensive the zoning changes the more the need for increasing public facilities and services including major thoroughfares.

Selected Future Land Use Plan. It appears that a controlled growth policy would be advantageous to the city. In this manner, the city may develop in an orderly fashion and may emphasize the upgrading of existing facilities and services rather than the extension of such services without due regard to proper improvement to existing facilities. Therefore, with the more likely infringement upon valuable open space which could occur under the Major Growth Plan, the Planning Board has selected the Controlled Growth Plan for implementation at this time. This plan is presented on Figure 6 and includes the specific land use and circulation recommendations of subsequent chapters, where applicable.

Land Use Recommendations. The Future Land Use plan sets aside specific areas for residential, commercial, industrial, institutional, and open space uses. Each land use proposal is discussed individually below.

Residential. Three residential categories are proposed as follows:

1. Urban – more than six families per acre.

2. Suburban – two to six families per acre.

3. Rural – one family or less per acre.

The urban area would include multifamily and apartment developments, and single-family development on very small lots. Average overall density would be 20 families per acre. Densities in a specific area could be higher provided that a sufficient quantity of open space was provided, so as to maintain the average density limits within the urban area.

The suburban density area would include both single- and multifamily developments. Multifamily development would be encouraged in planned developments such as clusters and PUD's (Planned Unit Developments).

It is anticipated that both public water and sewerage would be provided to the suburban areas.

The rural areas are primarily those areas which would not be served by the public sewerage system. In addition, they are lands which generally have severe topography and poor soils for development. Primarily single-family residential developments would be expected in these areas. However, again cluster development would be encouraged so as to make better use of the physiographic amenities of the land.

Industrial. Four major industrial areas are proposed. These are:

1. The Damon Road Industrial Park and its extension north along the railroad between I-91 and the flood plain of the Connecticut River.

2. The fairgrounds – Bridge Street area.

3. Route 10 – Route 66 area.

4. The Route 5 – I-91 interchange.

In all cases, except the Route 5 – Route I-91 area, the development would be controlled exclusively for industrial purposes. Route 5 – Route I-91 interchange area might be more valuable to the city for a regional shopping center site and, therefore, for a commercial use.

Fig. 6

MASTER PLAN

NORTHAMPTON, MASSACHUSETTS

FUTURE LAND USE
CONTROLLED GROWTH PLAN

Metcalf & Eddy, Inc. Engineers & Planners — Boston New York Palo Alto

May, 1972

Commercial. Two types of commercial business uses are contemplated:

1. General Business
2. Neighborhood Business.

The general business areas would include highway business activities, specialized shopping, general shopping, and central business. The central business would be the downtown Northampton area which would contain special shopping, civic functions, cultural functions, and business offices. It would be the major activity center in the city.

Neighborhood shopping would be convenience shopping areas for population concentrations of approximately 5,000 to 10,000 persons. Locations for these types of facilities are contemplated in the Leeds village center, North Main – Florence Street, the Ryan Road area, West Street area, Bridge Street, Conz Street, and Locust Street. These shopping areas usually include stores for meeting the daily shopping needs of the population. These would include small grocery stores, drugstores, cleaners, and similar type facilities.

Institutional. The major institutional uses are shown on the Future Land Use plan and include Smith College, the state hospitals, the city hospital, the city public school facilities, and the city offices, and cultural facilities.

Open Space. The major open space proposals are centered around the Mill River linear park, the Connecticut River flood-plain area, the western Northampton Mineral Hills area, and the linear greenway running northward from Mill River through the Northampton High School property, the Smith School, and the public works garage property, across Bridge Road and northward into the Laural Park area.

Land Use Amounts. Table 18 lists the estimated area used for various categories of land use in 1990 and at full development of the city according to the Future Land Use plan.

TABLE 18. FUTURE LAND USE AMOUNTS

	Estimated acres used	
Use	*1990*	*At full development*
Residential		
Urban	900	2,000
Suburban	1,200	2,300
Rural	300	4,600
Commercial		
General Business	150	250
Neighborhood Business	20	150
Industrial	350	1,000
Institutional	550	1,200
Roads	1,300	2,800
Open Space(1)	18,064	8,534
Total	22,834	22,834

1. Includes agriculture, water area, and undeveloped land.

CIRCULATION

Circulation refers to the movement of people and vehicles throughout the City of Northampton. This study is undertaken to determine the adequacy of the existing transportation system to accommodate the movement of people and traffic in an efficient and safe manner. As development occurs and land uses change, a need for improvement and extension of the existing system will become necessary. These improvements, which are needed to maintain an efficient transportation system, constitute the major concern of the study.

Local Street System

The existing Northampton street system is evaluated according to travel patterns and use (traffic flows).

Travel Patterns. An analysis of origin and destination data collected in the 1965 Springfield Urbanized Area Comprehensive Transportation Study indicates that there are four major traffic generators in the city. As major generators in the city, a high proportion of trips taken within the city, either begin or end in these areas. They are:

1. The Central Business District, including adjacent residential areas.

2. The King Street and North King Street area.

3. The Florence-Bay State area.

4. The Route I-91 interchanges, particularly those providing access to and from the south.

In the future the above areas are expected to continue as major traffic generators. Because of the industrial park development and more intensive commercial development, the King Street and North King Street area should increase in importance as a generator. A fifth area, not mentioned above, but presently developing into a major generator, is the Ryan Road residential area.

In some cases where significantly high frequency of travel occurs between these major generators and other areas within and outside of the city, there is an inability of the existing street system to adequately serve travel desires. Deficiencies in the pattern and location of existing streets cause undue losses in travel time, congestion, and safety hazards. The travel patterns in the city which are not adequately served by the existing street systems are:

1. Between the Ryan Road area and

   a. the CBD.

   b. King Street-North King Street.

   c. Route I-91 south.

   d. Hadley and Amherst.

2. Between the Bay State-Florence area and

   a. King Street-North King Street.

   b. Hadley and Amherst.

3. Between the CBD and

   a. Williamsburg.

   b. Leeds.

   c. Bay State-Florence area.

4. Between King Street and North King Street and northbound traffic exiting from Route I-91.

Traffic Flow. Traffic flow is the number of vehicles which travel over a section of roadway within a specified period of time. Traffic flow is generally measured on the "average" day, and is important as a valuable index of street usage.

The existing (1971) and expected (1990) traffic flows on major streets in Northampton are shown in Table 19. The 1990 flow is projected for the existing street system to indicate what the volumes would be if no improvements were undertaken.

Factors Affecting Circulation Plan

There are several recently completed and planned circulation facilities whose effects have or will have a rather profound impact on the City of Northampton. These facilities are discussed separately below.

Route I-91. There are three interchanges on Route I-91 in Northampton. One is a full interchange at Mt. Tom Road. The other two are partial interchanges which provide access in one direction only. At the Bridge Street interchange access is limited to and from the south and the North King Street interchange it is limited to and from the north. It is these two half interchanges which have greatly affected local travel patterns, especially on Damon Road, Bridge Road, and King Street.

TABLE 19. TRAFFIC FLOW

	Traffic volume (ADT)[1]	
	1971[2]	*1990*[3]
Route 5		
Mount Tom Road	4,500[4]	7,200
Pleasant Street	7,900-10,700	12,400-18,400
King Street	11,300-17,200	20,000-30,400
North King Street	4,400-7,400	6,900-11,600
Route 9		
Haydenville Road	7,800	12,200
North Main Street	7,800-11,800	12,200-20,100
Locust Street	11,200-12,200	19,700-21,400
North Elm Street	11,200	19,700
Elm Street	12,800-17,900	22,500-30,500
Main Street	15,000-15,700	30,000-30,500
Bridge Street (West of I-91)	10,500-11,200	19,800-20,000
Bridge Street (East of I-91)	22,700	40,600
Route 10		
Easthampton Road	7,500[4]	11,800
South Street	10,800-12,900	18,500-20,200
Main Street	15,000-15,700	22,500-30,500
King Street	11,300-17,200	20,000-30,400
North King Street	4,400-7,400	6,900-11,600
Route 66		
Westhampton Road	1,200[4]	2,000
Rocky Hill Road	2,300	3,000
Chapel Street	2,000-2,100	3,900
Prince Street	4,400	8,600
West Street	5,000	9,800

1. ADT means average daily traffic (vehicles per day).
2. Source: Massachusetts Department of Public Works, Areawide TOPICS Plan.
3. Source: Estimates by Metcalf & Eddy, Inc.
4. 1969 volume.

Route 9 Relocation. The Route 9 relocation was discussed in the previous chapter. It was concluded that a controlled growth policy would be adopted and therefore, under such a policy there is no need for a relocation of Route 9 in Northampton at this time.

Route 10 Relocation. Route 10 is a major north-south state highway which connects Westfield and the Massachusetts Turnpike on the south with Northampton and the Greenfield area to the north. In Northampton, Route 10 joins with Route 5 on Main Street and coincides with Route 5 through the City. Presently the state DPW is in the process of upgrading Route 10 from Westfield to Northampton. Partial sections in Westfield have already been completed and possible relocation routes are being studied in Easthampton and Northampton. Relocation of Route 10 in Northampton is not considered justifiable because of the north-south access provided by Route I-91. One of the major reasons for relocating Route 10 in Northampton would be to provide access to I-91 for residents of northern Easthampton. This could be satisfied by constructing a local connector road from Route 66 to Route I-91.

TOPICS. The TOPICS program, with a combination of federal and state funds, provides for the improvement of existing streets to increase their capacity and safety. The areawide TOPICS Plan has recently been completed for Northampton and specifies improvements eligible for TOPICS funding. Since the capacity of a street network in an urban area is primarily determined by the capacity of the intersections, these improvements, if implemented, could substantially improve traffic flow throughout the city.

Circulation Facilities and Future Land Use

Circulation facilities stimulate land development, and conversely, development generates the need for circulation facilities. Generally the circulation plan recommended herein reflects the selected controlled growth policy and associated future land use.

Recommendations

Policies. The following circulation policies were used as a basis for the circulation plan and are recommended for adoption and use in future circulation facilities planning in Northampton.

1. Encourage at all levels of government the study, development and implementation of public transportation systems where practicable, as more efficient and less damaging to the environment than Northampton's present system.

2. Relate the city's circulation facilities plan to regional plans and needs in such a manner that the location and type of the proposed Northampton streets and other transportation facilities are coordinated with the proposals in adjacent towns.

3. Adopt a plan for circulation which will enhance, where practical, land values and the environment, and will complement and serve existing and proposed land uses.

4. Provide for convenient connectors between major arterials in the City.

5. Improve existing roads and where new locations or relocations are needed, avoid taking existing structures, eliminating any public facility or disrupting environmental assets.

6. Select priorities for road improvements and new circulation facilities with due consideration for the safety of both pedestrians and vehicle occupants.

7. Coordinate circulation elements with other elements of the Comprehensive Plan to assure compatibility and overall benefit.

Mass Transit Studies. The term "balanced transportation" describes a system of various transportation modes used together to satisfy travel needs. Although currently generally applicable and economically feasible only in large metropolitan areas, such balance certainly warrants consideration in Northampton. Presently, a study on mass transportation for the Lower Pioneer Valley region is being carried out by the Lower Pioneer Valley Regional Planning Commission. The city should ensure that the following items are specifically covered in the regional study with respect to Northampton:

1. Review of previous studies including Springfield Urbanized Area Comprehensive Transportation Study.
2. Survey of existing bus company routing and scheduling, and adherence thereto.
3. Study of trip times and passenger costs.
4. Evaluation of rolling stock by capacity, age, and condition.
5. Count of passenger volumes and bus occupancy.
6. Survey of passenger travel desires by origin and destination. Use 1965 Springfield Urbanized Area Comprehensive Transportation Study data as base.
7. Citizen survey to determine attitudes, needs, and expected usage of expanded bus service.
8. Review of bus companies' plans for expanded or reduced service and methods utilized in making such decisions.
9. Identification of problems and recommended solutions for lack of continuity of service, if any.
10. Recommendations for expansion or improvement of service as appropriate.
11. Recommendations for seeking and promoting state, local, and federal subsidies for public transportation in any practical form.

Program of Improvements.

A. For Immediate Implementation. The following improvements shown on Figure 7 are recommended for implementation between 1972 and 1975:

1. Make a formal request to the State Department of Public Works regarding the following:

   a. Request a study to determine the feasibility of constructing a second full interchange on Route I-91 in Northampton either at Bridge Street or at North King Street, including the

Fig. 7

MASTER PLAN

NORTHAMPTON, MASSACHUSETTS

CIRCULATION

Metcalf & Eddy, Inc. Engineers & Planners

Boston New York Palo Alto

WILLIAMSBURG

HATFIELD

HADLEY

WESTHAMPTON

EASTHAMPTON

LAUREL PARK

LEEDS

FLORENCE

N

SCALE IN FEET

0 1200 2400 3600 4800

EXISTING FACILITIES

Freeway

Arterial Street

Collector Street

Local Street

PROPOSALS

Corridor for New Arterial Street

Corridor for New Collector Street

Improvement to Existing Arterial

Improvement of Existing Collector to Arterial Standards

Improvement of Existing Local Streets to Arterial Standards

TOPICS—improved intersection with Priority

Improvement to Existing intersection not considered under TOPICS

consideration of an improved system of frontage roads between the existing half interchanges.

b. Request the consideration of the following additional intersections which were not originally studied under TOPICS:

King Street and North King Street

Jackson Street – Bridge Road

Hatfield Street – North King Street

Main Street – Center Street

Elm Street – Paradise Road

Audubon Road – Kennedy Road.

2. Widen and realign Florence Road between Ryan Road and Route 66.

3. Promote a more extensive program of improvements to existing streets.

B. For Short-Range Implementation. The following improvements are recommended for implementation between 1975 and 1980:

1. Construct the Bridge Road – Florence Road connector between Hatfield Street and Nonotuck Street and widen Hatfield Street to two full lanes.

2. Realign and widen Burts Pit Road from Florence Road to Prince Road.

3. Realign and widen Ryan Road from Burts Pit Road to the Ryan Road School.

4. Extend the Bridge Road – Florence Road connector from Nonotuck Street to Florence Road.

5. Construct the full interchange and frontage roads on Route I-91 in accordance with plans developed by the State DPW and approved locally.

6. Construct the Route 66 – Route 10 connector.

C. Long-Range Implementation. The following improvements are recommended for evaluation and implementation between 1980 and 1990:

1. Realign and widen Westhampton Road and Rocky Hill Road (Route 66) between the Westhampton town line and Grove Street.

2. Realign Burts Pit Road from Ryan Road to Florence Road.

3. Construct a new realigned bridge on Ryan Road over the Mill River.

4. Widen Pine Street and Maple Street.

D. Improvements Dictated by Development. The following are recommended to be constructed as development in adjacent areas dictates. Locations are shown schematically on Figure 7. Final routes are to be located in accordance with actual development. The streets are:

1. Laurel Park collector.

2. Ryan Road collector.

3. Burts Pit Road – Westhampton Road collector.

Implementation. The following are recommended methods for implementing the proposed improvements:

1. *TOPICS.* The TOPICS program is previously discussed in this

report. The "Areawide TOPICS Plan" for Northampton has been completed in preliminary form and qualifies the city for implementation of the improvements recommended therein. No city funds are involved with the exception of a minimal amount of land-taking.

2. *Official Mapping.* An official map is a document, adopted by the City Council, that pinpoints the location of future streets and other public facilities. In effect, the map informs developers that the city intends to acquire certain specified property in the future. When used realistically, an official map can serve as a positive influence to sound development of future public facilities. In view of the roads proposed in the Circulation Plan, particularly those in existing undeveloped areas, it would be judicious for the city to locate the proposed roads and designate them on an official map. This would entail a location survey and study for the proposed routes, since exact locations must be shown on the official map.

3. *Chapter 90 Funds.* The city could utilize state Chapter 90 new construction funds, either annually or pooled, to implement the plan improvements.

4. *Subdivision Regulations.* The city could require developers under subdivision regulations, site plan review, to build collector streets recommended herein of adequate width and locate the streets with the intent of future connection.

5. *Zoning Ordinance.* Under its Zoning Ordinance, the city could prevent development at intersections which would restrict visibility.

SCHOOLS

The City of Northampton operates a public school system for the residents of the City for grades K through 12 organized on a K-6-3-3 educational system. In addition, vocational education is provided at the City owned Smith Vocational School.

Existing Facilities

There are presently 18 separate public school facilities in Northampton. Their locations are shown on Figure 8. In addition to the Smith Vocational School facilities, there are one senior high school, two junior high schools, and fourteen schools providing educational space for the kindergarten and elementary classes.

Of the fourteen buildings used for kindergarten and elementary school purposes, only three were built after 1930. These three, the Jackson Street School, the Leeds School, and the Ryan Road School are the only modern elementary school facilities in the city. Future planning is based on the continuation of these facilities. Further, future planning is based on the replacement of all other elementary schools, which, because of age and original design, do not provide the physical facilities necessary for modern educational programs.

School planning for junior high school facilities over the next 20 years is based on the continued use of the John F. Kennedy School and the replacement of the Hawley Junior High School. The John F. Kennedy School was built in 1964 and provides modern educational facilities, whereas the Hawley Junior High School was built in 1904 and except for the addition of indoor athletic and eating facilities in 1954, educational space in the original building is obsolete.

The present Northampton High School, built in 1940 with a major addition in 1968, provides suitable educational space for continued use through the planning period. However, certain deficiencies exist with respect to cafeteria and indoor and outdoor athletic space. The elimination of these deficiencies incorporated into this school plan.

Our evaluation of the Smith School facilities indicates the need of detailed study by an educational consultant to determine the City's policy with respect to providing vocational education, the relationship of the vocational education program in the present high school with that of the vocational technical high school, the relationship to regional vocational needs, and the educational program to be offered. Based on the findings of this study, a program for physical facilities may then be developed. Any such program should include the replacement of the original Smith School building.

Fig 8

MASTER PLAN

NORTHAMPTON, MASSACHUSETTS

SCHOOLS

Metcalf & Eddy, Inc. Engineers & Planners

Boston New York Palo Alto

October, 1971

Existing Public Schools

Potential School Site

Future Elementary School District Boundary

Future Junior High School District Boundary

WILLIAMSBURG

HATFIELD

HADLEY

EASTHAMPTON

WESTHAMPTON

LAUREL PARK

LEEDS

FLORENCE

BAY STATE

Leeds School

Kennedy Jr. High School

Hatfield School

Lilly School

Florence Grammar School

Northampton High School

Feiker School

Ryan Rd. Elem. School

King St. School

Bridge St. School

Williams St. School

South School

Connecticut River

Oxbow

Enrollments

Future public school space demands will depend on the future enrollments expected. Based on our analysis of past trends in public and private school enrollments and past and projected population, the following assumptions are made concerning future enrollments:

1. The recent decline in the Northampton birthrate should generally level off.

2. The past out-migration trends should be reversing shortly and there should begin to be a growth of population in Northampton as a result of in-migration.

3. The impact of parochial and private schools should continue to decline slightly as it has over the past ten years and should level off at about 500 students attending schools other than the Northampton public schools.

The past public school enrollments and future projections are presented in Table 20 by five-year periods.

Based on these enrollment projections, the estimated teaching station needs are shown in Table 21.

It appears from the projections that over the next 10 years the need for teaching space in the public school system is not critical. However, the important fact exists that classroom space, particularly at the elementary school level, in many cases is obsolete and in other cases is not located in the proper relationship to student population. Therefore, during this period when additional space is not needed overall, the opportunity of providing replacement space should not be lost.

Two additional findings are pertinent to the development of the overall school plan. First, the offices of the superintendent of schools would better be located in a facility not connected with any existing school facility. Secondly, there is a need for a central warehouse facility for the collection and distribution of school equipment and supplies.

TABLE 20. PUBLIC SCHOOL ENROLLMENTS

	Grade level				
School year	*K*	*1-6*	*7-9*	*10-12*	*Total*
Actual					
1960-61	427	2,066	1,061	668	4,222
1965-66	431	2,181	1,064	922	4,598
1970-71	348	2,163	1,123	1,070	4,704
1971-72	372	2,191	1,111	1,134	4,808
Estimated					
1975-76	303	1,934	1,157	1,195	4,289
1980-81	520	2,370	976	1,162	5,028
1985-86	560	3,338	1,368	1,005	6,271
1990-91	655	3,643	1,688	1,714	7,700

TABLE 21. ESTIMATED FUTURE TEACHING STATIONS NEEDS[1]

School	Grade level							
	K		*1-6*		*7-9*		*10-12*	
year	*Des.*	*Min.*	*Des.*	*Min.*	*Des.*	*Min.*	*Des.*	*Min.*
1975-76	8	7	79	66	51	42	61	49
1980-81	13	11	98	82	45	36	60	48
1985-86	14	12	135	114	60	50	52	43
1990-91	17	13	149	125	75	62	87	69

1. Based on the following standards for students per teaching station:

	K	*1-6*	*7-9*	*10-12*
Desirable	40	25	23	20
Minimum	50	30	28	25

Alternative Plans

Numerous approaches to meeting the Northampton School needs over the next 20 years were studied. These were reduced to two basic alternatives designated as follows:

1. Top priority to replacing older elementary school facilities.

2. Top priority to eliminating the overcrowding in the Ryan Road elementary school.

The selected plan initially provides relief to the overcrowding in the Ryan Road elementary school, then provides a major emphasis on replacing the older elementary schools. Flexibility exists in the selected plan so that adjustments may be made to reflect the latest trends in enrollments, neighborhood development, and educational program.

Recommendations

Policies. The following school policies were used as the basis for the school plan.

1. The policy for early site acquisition should be recommended by the Northampton School Board to ensure the availability of suitable sites at a reasonable cost. In evaluating and selecting sites, the School Board should utilize the technical expertise of the City Planner.

2. Where possible, school site sizes should be increased by five to ten acres above recommended standards to include space for recreational facilities in accordance with the overall city recreation and open space plan.

3. A teacher-pupil ratio of one to twenty-five should be maintained throughout the planning period.

4. The neighborhood concept of elementary education should be followed in providing facilities as much as practicable within a mile and a half of every home.

Plan and Program. Based on the analysis and projections above, and on the evaluation of several alternatives, the following school plan and program is recommended. The plan is shown on Figure 8.

Stage 1, to be completed by 1975

1. Construct 8 classroom additions to the Ryan Road and Jackson Street schools and make the necessary improvements to supporting facilities. Abandon the Hatfield, Williams Street, Feiker, Lilly, and King schools, and the elementary classes in the D. A. Sullivan School.

2. Construct a new 24-classroom South Elementary School to open by September 1975. Abandon the Vernon, Bridge Street, and South Street Schools.

3. Renovate the Bridge Street School for use as a central warehouse and for offices of the superintendent of schools.

4. Convert space in the Northampton High School now occupied by the superintendent of schools to classroom space.

5. Determine the space needs for additional cafeteria and indoor and outdoor recreational space at the High School after the decisions have been made on the use of the open campus concept of high school education and construct appropriate facilities.

6. Purchase site for new Florence Road Elementary School.

Stage 2, to be completed by 1978

1. Construct a new 24-classroom Florence Road Elementary School, grades K through 6.

2. Construct 6-classroom addition to the Leeds School.

3. Purchase sites for two new elementary schools, one in Florence and one in the Bridge Street area and for a new Junior High School.

Stage 3, to be completed by 1981

1. Construct new 40-classroom downtown Northampton Junior High School to replace the Hawley School.

Stage 4, to be completed by 1985

1. Construct new 24-classroom Florence Elementary School and eliminate present Florence Elementary School.
2. Construct new 24-classroom Bridge Street Elementary School.
3. Purchase site in the Burts Pit Road-Ryan Road area for future junior high school.

Stage 5, to be completed by 1988

1. Construct 6-classroom addition to J. F. Kennedy Junior High School.
2. Construct 24-classroom addition to the Northampton High School.
3. Purchase site in Bay State for future elementary school.

RECREATION AND CONSERVATION

With more and more leisure time due to shorter working hours and with a greater public awareness of our environment, recreation and conservation are taking on added importance in the development of a community's comprehensive plan. This section of the Northampton Comprehensive Plan deals with the City's present situation with respect to recreation and conservation, and proposes a plan for the next twenty years.

Existing Facilities

The existing recreation and conservation facilities are listed in Table 22. Their locations are shown on Figure 9. The number of each facility listed in Table 22 corresponds to the numbers shown on Figure 9.

TABLE 22. EXISTING RECREATION AND CONSERVATION FACILITIES

Name and classification of facilities	*Name and classification of facilities*
City-Owned Outdoor Facilities	**City-Owned Indoor Facilities**
1. Sheldon Field, Playfield	20. Northampton High School, Kennedy Junior High, Ryan Road School, Leeds School, Smith Agric. and Voc., Jackson St. School, Hawley Junior High, D. A. Sullivan School,
2. Williams St. School Playground	
3. Jackson St. School Playground	
4. Agnes Fox Field, Playfield	
5. Veteran's Memorial Field, Playfield	4 gymnasiums and 4 multi-purpose rooms
6. Kearney Field, Playfield	21. Academy of Music, Theater
7. Arcanum Field, Playfield	**Other Public and Private Outdoor and Indoor Facilities**
8. Leeds School Playground	
9. Maines Field, Playfield	22. Northampton Country Club, Golf and Swimming
10. Ryan Road School Playground	23. Pine Grove Golf Course
11. Child's Park	24. Arcadia Wildlife Sanctuary, Open space
12. Look Memorial Park, Reservation	25. Shepard's Island, Open space
13. Main Street Park	26. Driving Range – Haydenville Rd., Golf
14. J.F.K. Junior High School, Playfield	27. Driving Range – Wilson Rd., Golf
15. Bridge St. School Playground	28. Smith College Tennis Courts
16. Florence Grammar School Playground	29. Smith College Sliding Hill, Winter sledding area
17. Feiker School Playground,	30. Smith College Paradise Pond and Athletic Field, Park

TABLE 22 (Continued). EXISTING RECREATION AND CONSERVATION FACILITIES

Name and classification of facilities	*Name and classification of facilities*
18. Watershed lands:	31. Clear Falls Recreation Center, Reservation
Reservoir and Chesterfield Roads, Open space(1)	32. Oxbow Marina, Boating
Ryan Road, Open space	33. YMCA Day Camp, Park
Off Clark Street, Open space	34. Tri County Fairgrounds, Special
19. Public Squares:	
Eight public squares, Parks	35. YMCA, Recreation center
36. St. Michael's School, Multi-purpose room	38. Bowling Alleys – Pleasant St. and Maple St.
37. People's Institute, Recreation center	39. Northampton Revolver Club, Gun Club

1. The area below the lower Leeds Reservoir is used for swimming.

Evaluation of Facilities

An extensive system of playgrounds, playfields, parks, reservations, and gymnasiums now serves the outdoor and indoor recreation needs of the residents of Northampton. There are, however, a few deficiencies which exist presently, and there are additional recreation and conservation needs which are likely to develop over the next 20 years. These are as follows:

1. There is an overall absence of mini parks or those facilities providing grassed areas, walks and benches for all ages and sandboxes, slides, and swings for preschool age children.

2. There is no community center, an indoor facility which is necessary for all ages from preschool to the elderly.

3. There are no ice hockey facilities in Northampton and ice skating is provided only on flooded areas depending on the weather for freezing.

4. Additional playground and playfield facilities will be required as the City population grows and as it redistributes itself. Such facilities should be and can be provided as part of elementary and junior high school facilities.

5. There is a need for the preservation of open spaces to enhance the urban environment. Such spaces should be developed to provide hiking, bicycling, and other trails.

Recreation Program and Staff

There are two areas where present staffing appears to be light. These involve leadership personnel.

There is a need for at least one additional full-time professional staff member whose duties would be divided between those of an assistant director of recreation and a supervisor of special activities on a city-wide basis. Thus, the administrative duties of the director of recreation could be directed towards the direct administrative responsibilities, public promotion, and budgeting. The assistant director could then devote his time to adequately planning, supervising, and evaluating programs and coordinating and supervising the staff of supervisors, recreation leaders, officials, etc. In addition, he would also function as a supervisor of a special recreation activity.

Other staff members must be added as the city increases in population and as the department expands its operation and program. It would appear that specialists in certain types of recreation activities would be the types required on a part-time basis during the season that their specialty is active.

Recreation programs now offered in the city should be expanded to cover broader age groups and to provide a broader range within specific age groups. Programs are lacking for the nonathletic teenager, and to a limited degree, the elderly. The lack of indoor programs for preschoolers, the teenagers, and the elderly indicates the need for a recreation center. Other programs which are not offered primarily because of lack of facilities include ice hockey, indoor swimming, hobbies, nature education, boating, gymnastics, and figure skating. Although some of these programs are offered at the YMCA, these programs are not available to all residents of the city.

Fig 9

MASTER PLAN

NORTHAMPTON, MASSACHUSETTS

RECREATION & CONSERVATION

Metcalf & Eddy, Inc. Engineers & Planners

Boston New York Palo Alto

Recommendations

Policies. The following recreation and conservation policies were used as the basis for the recreation and conservation plan.

1. Space should be provided for wholesome outdoor and indoor recreation with its inherent values to the individual of all ages.

2. The urban environment should be made a more attractive place in which to live.

3. Important natural resources and important historic, geologic, and horticultural features should be preserved.

4. Overcrowding of the land should be prevented.

5. The recreation space and open space required for a 1990 resident city population of 31,000 should be provided along with the framework for a recreation-open space system to serve future generations beyond 1990.

6. The maximum utilization of facilities should be achieved through the joint use by the school department and the recreation department of both school department and recreation department facilities.

7. The multiple functioning of open spaces should be achieved to the fullest extent possible where appropriate in terms of the nature of the land.

8. The quality of expansibility for all recreation areas should be provided through the early acquisition of land.

Plan and Program. The Recommended Northampton Recreation and Conservation Plan, for facilities, land, and development, is presented according to the three-phased program set forth below. These recommendations are shown on Figure 9.

Phase 1: 1971-1975

1. Initiate a program for the acquisition of land for the development of mini-parks throughout the city. Top priority should be given to the Bridge Street and Florence area.

2. Initiate a conservation land acquisition and/or easement program for the creation of a Mill River greenbelt extending from the Williamsburg town line to the Connecticut River. The areas generally designated on Figure 9 should be included in such a greenbelt. A detailed linear park plan should be prepared including access points, natural areas, undeveloped areas, land-taking plans, land-control measures, hiking trails, bicycle trails, and the like.

3. Adopt zoning controls and subdivision regulations as recommended in subsequent sections of this Comprehensive Plan to preserve flood plain areas and to implement other recommendations of this plan.

4. Construct an ice-skating rink under the state program to be used for ice hockey, figure skating, and general ice skating.

5. Convert the present Parks Division garage space to storage space for the Recreation Department. Conversion should take place after the necessary garage facilities are constructed at the new Public Works complex.

6. Develop playground facilities in conjunction with the new South School.

7. Expand the development of existing yards and playgrounds at the Williams Street School, the Vernon School, the Feiker School, and the old South Street School.

Phase 2: 1975-1980

1. Develop playground facilities in conjunction with the construction of the New Florence Road School.

2. Continue development of mini-parks.

3. Continue the acquisition and development of the Mill River linear park.

4. Purchase land adjacent to the John F. Kennedy School and expand playfield facilities.

5. Lay out and develop a trail system utilizing the greenbelts as recommended on Figure 9. Top priority should be given to the presently developed urban area including the abandoned railroad right-of-way and the Mill River greenbelt.

Phase 3: 1980-1990

1. Construct a swimming pool at the high school to be available for use by all Northampton residents.

2. Develop playgrounds and playfields in conjunction with the construction of the new Florence School, the new Downtown Junior High School, and the new Bridge Street Elementary School.

3. Convert the Hawley School to an indoor community center.

4. Continue acquisition and development of the Mill River linear park.

5. Develop a trail system in western Northampton to provide for hiking through the Mineral Hills to the high points designated on Figure 9 through easements and informal agreements.

Other recommendations are as follows:

1. Establish the position of Assistant Director of Recreation.

2. A survey is now underway to identify and document historic structures and sites in the city. This survey should be completed as soon as possible, and a program for historic preservation should be developed with consideration given to the establishment of a historic district(s) under Chapter 40C of the General Laws.

3. Specific recommendations are made with respect to the flood plain area, the Mill River linear park, and the hiking and riding trails in the Mineral Hills area. Much of the Conservation and Open Space land designated in Figure 9 falls outside these specific areas. But these areas have physical characteristics such as steep slopes, rock and ledge, wetness, etc., which are restrictive to intensive development. Therefore, our recommendation is that the development policy of these areas restrict development to very low overall densities and promote the fullest and most appropriate use of the natural landscape.

CITY BUILDINGS AND SITES

The city's administrative offices, police and fire protection facilities, the library services, and public works offices and equipment are considered in this chapter of the Comprehensive Plan. It is these facilities, along with the schools, circulation facilities, recreation, and open space discussed in earlier chapters of this report which must be coordinated with total city development and designed to serve the future land use pattern throughout the city.

Evaluation of Existing Facilities

The locations of the various city buildings and their sites are shown on Figure 10. The evaluation of these facilities is presented below under the five broad categories of fire protection, public works, city offices, library, and police.

Fire Protection. There are three fire stations presently in Northampton: the central fire station in downtown Northampton on Masonic Street, the

Fig 10

MASTER PLAN

NORTHAMPTON, MASSACHUSETTS

CITY BUILDINGS

Metcalf & Eddy, Inc. Engineers & Planners

Boston New York Palo Alto

October, 1971

Florence Fire Station on Maple Street, and the Main Street Leeds Fire Station. All three fire stations are over 100 years old; space designs of one hundred years ago are too restricted for today's larger fire fighting equipment; there are some signs of disrepair; and, because of the lack of sufficient space within the stations as well as the proper size of space, the required types of fire fighting equipment are not able to be housed at the proper locations throughout the city. All three facilities should be eliminated over the next twenty years and sufficient fire coverage provided through construction of new facilities. Top priority should be given to completing the new Florence Fire Station, now being planned.

Public Works. Presently the public works facilities are scattered in six different locations throughout the city. The engineering division and water division are located in the Water Department building on Prospect Street. The parks division is located in the recreation department building also on Prospect Street. The sewer division office and Public Works Garage is located on Locust Street; the water department office for billing is located in Memorial Hall; the Cemetery office is located at the Spring Grove Cemetery; and a Sewer Division office is located at the Sewage Treatment Plant on Hockanum Road. This scattering of facilities results in duplication of work, wasted time, and inefficiency in operation. The service to the public is hindered, employee sanitary facilities are inadequate and nonexistant in some locations, and the engineering and water department space is limited and in need of renovation. The site of the Public Works Garage on Locust Street is approximately 11 acres in size and is centrally located in the city. It would be the most appropriate location for centralized facilities.

City Offices. City administrative offices are presently located in three separate buildings: the City Hall, Memorial Hall, and the Recreation Department building on Prospect Street. In order to provide sufficient space for present and expanded city department functions, and for new city departments and functions, we estimate that a 70 percent increase of present city office space is required over the next 20 years. Increased space demands should be met within the present City Hall and within as close proximity to the present facility as possible.

Library. The Forbes Library now serves as the principal library facility for the City of Northampton. In addition, the Lilly Library is available in Florence. Sufficient library space is provided in the two facilities. However, off-street parking should be expanded at the Forbes Library with the addition of 30 spaces. Ten spaces should be provided at the Lilly Library. Also, substantial building improvements are required at the Forbes Library. Finally, there is a definite need to provide coordinated branch library services in Florence at the Lilly Library. Presently, this facility is operated independently of the Forbes Library.

Police. The existing police station building contains approximately 7,200 square feet of usable space, 2,000 of which is used by the Registry of Motor Vehicles and 2,000 of which is garage space. This modern facility, built in 1966, is suitably located and should be adequate through the planning period. However, additional police space is required now. The record storage and the interrogation room should be separated; office space should be provided for a deputy chief and for the Youth Bureau. Finally, classroom space is lacking. The patrolmen's lockeroom and the garage are now being used for this purpose.

At such time as the Registry of Motor Vehicles' lease expires, the police could occupy this space. This additional 2,000 sq ft would be sufficient for the police over the next 20 years.

Recommendations

Policies. The following policies were used as the basis for the City Buildings Plan:

1. Provision should be made to locate the city buildings in areas of compatible land use.

2. Efforts should be made to retain the city employment base directly in or in close proximity to the central business district.

3. Where feasible, offices should be grouped according to functional relationships so as to provide efficiency of operation.

4. The plans for city buildings should recognize the fact that they are used in conjunction with a multimillion dollar business, namely, that of city government operations.

5. The importance of high level of community services cannot be overemphasized, especially in terms of potential business and

industrial development and retention of existing industry and business.

Plan and Program. The following recommended plan, shown on Figure 10, is presented in three stages as set forth below.

Stage 1: 1971-1975

1. Expand the present Florence Fire Station site and construct a new fire station in Florence. Eliminate the present Florence Station.

2. Prepare architectural designs of public works office facility and of renovations to and expansion of the present public works garage. Carry out construction of new public works office building and necessary renovations to existing garage and provide additional garage space as required to house vehicles of the water division, and the parks division as well as the other public works divisions already using the existing garage.

3. Initiate steps towards determining the disposition of the gas company building; prepare detailed plans for the allocation of space in City Hall and the gas company building.

4. Provide additional off-street parking at Forbes Library.

5. Expand the police station into the space now occupied by the Registry.

6. Initiate steps required to coordinate the function of the Lilly and the Forbes libraries.

Stage 2: 1975-1980

1. Provide additional city office space as required through renovation of the gas company building and the City Hall. Include space for a municipal computer center.

2. Purchase site for the new Burts Pit Road Fire Station. Site should be selected on the basis of development at the time of acquisition.

3. Expand Lilly Library into the basement and provide off-street parking space.

4. Raze the present Armory in preparation for reuse of the site for a new Central Fire Station. Construct a new central fire station on the site of the old Armory.

Stage 3: 1980-1990

1. Purchase land in Leeds for a new fire station.

2. Construct a new fire station either on Burts Pit Road or in the Leeds area, depending upon needs at that time.

CENTRAL BUSINESS DISTRICT

Traditionally the CBD (Central Business District) is defined as the retail heart of the community, where individually and collectively retail stores do a greater volume of business per unit area than elsewhere within the community. In Northampton, the CBD, historically, has been concentrated generally at the intersection of two major highways, one north-south in orientation, the other east-west in orientation. Although its function as the retail center of the community has changed recently, because of the development of outlying shopping areas, it is still the civic and economic heart of the community. It is the changing role of the CBD in recent years, especially with respect to economic activity which has been of concern to the Northampton City officials. The City has recognized the need for immediate study of the CBD, since certain decisions must be made in the very near future, which could affect the long-range future of downtown Northampton. The possibility of continued shrinking in the CBD tax base looms if action is not taken.

Inventory and Evaluation

The limits of the Northampton CBD have been selected and are defined as shown on Figure 11. The evaluations and plans presented in this chapter are for the CBD area. However, these plans are coordinated with and designed to fit into the plans for the entire city.

June 1971

Fig II

9

10

5

3000

5400

5000

8000

3600

7000

9

66

6000

10

5

6100

—— CBD Boundary

* 000 * Traffic Volumes, 1969 ADT (Source: Mass DPW)

▬ Pedestrian Crosswalk

NORTHAMPTON, MASSACHUSETTS

CIRCULATION INVENTORY
CBD

Metcalf & Eddy, Inc.
Engineers & Planners

Boston New York
Palo Alto

Existing Land Use. In July 1970, a field survey was made by Metcalf & Eddy of all existing land uses in Northampton. In conjunction with this survey, a detailed land use and building utilization survey was made of the Northampton CBD.

Excluding streets, the majority of the land uses are business activities – namely, retail trade and the service businesses. Public uses account for 16 percent of the total area, the most significant of which are the City Hall, the County Court House, the Hall of Records Building, and the Northampton Junior College complex.

The building utilization varies considerably on the upper floors from that which is carried on at the first floor level. The principal difference is between the retail activity predominantly on the first floor, and the business services and office activities carried out on the upper floors. Also numerous apartments are found on the upper levels over commercial activities.

There are three major land use problems in connection with the present Northampton CBD.

First, the division of the retail activity and other business activities in the downtown by the major roadways, Route 5 and Route 9, creates an obstacle for the free movement of the users of the retail and business establishment. This tends to discourage pedestrian circulation for more extensive use of the area. The malls of the modern shopping centers are provided to overcome this problem, thus providing a competitive advantage over the older shopping areas such as the CBD.

Secondly, the various mixed land uses usually tend to produce conflicts of various types. The conflicts in the Northampton CBD are primarily between residential and commercial uses, especially where the apartments have been developed on the upper floors of the same building housing Main Street commercial activity. It is recognized that at present and in the near future many of these upper floors might become vacant if the are not used as apartments. However, any long-range plan for the area should consider a better living environment adjacent to the CBD as a replacement for these apartments.

Thirdly, the existing policy of development in and around the CBD is expressed in the present Northampton zoning ordinance. This policy presently allows commercial development of all types throughout the entire delineated CBD. More important, however, is the fact that it allows commercial development of all types to extend well beyond the physical limits of our established CBD. The entire area south of the abandoned railroad right-of-way between Conz Street and Route 5 is zoned for business use. Also zoning for business extends north along King Street and east along Bridge Street. Thus, the existing land use policy does not reflect a realistic approach to the future role of downtown Northampton in relation to the rest of the City as well as its regional area.

Economy. The following conclusions are drawn with respect to the CBD on the basis of economic surveys and trends for the entire city:

1. The CBD is the most important commercial area in the City, with three times as many business establishments as the next most important commercial area.

2. The CBD, with approximately 80 percent of the city's service establishments, is the principal location for the service industry in Northampton.

3. The CBD contains approximately 50 percent of the City's retail establishments with approximately 31 distinct types of retail stores.

4. The principal competitors to the CBD are the King Street and North King Street shopping areas.

5. The type of retail trade outside the CBD is that which is capturing the majority of the purchasing dollars in the City and those which have seen the greatest increase in sales in recent years. These groups are the general merchandise group, food, and automotive sales.

Overall, it appears that the central business district has remained almost unchanged over the past 10 to 15 years. Competition from other shopping areas within the City as well as other existing and proposed outside of the City is becoming greater and greater. Whereas much of the retail market provided by a large area outside the City was being captured, the extent to which this is being captured today is declining. In light of these situations,

planning is directed towards achieving the best practical economic situation in the CBD, recognizing the recent economic trends and likely factors affecting future prospects.

City and County Buildings. The City Hall and Memorial Hall are the principal city office buildings. As proposed in a previous chapter, the City office functions should remain in their present location and expand in the same general area into the Gas Company building.

The County Court House has been the subject of much study and discussion in recent years. A major expansion of the Court House facilities is proposed through construction of a new building. Several sites have been evaluated, both within the CBD and outside of it. A site adjacent to the Hall of Records building has been selected. A new building with an attachment to the present Hall of Records and the provision of the required off-street parking is recommended.

The City Police Station was constructed in the 1960's and should therefore continue in its present location throughout the 20-year period for this CBD plan.

The Masonic Street Fire Station is extremely old. According to recommendations of the City Buildings plan, this facility should be replaced on a new site outside the CBD between 1975 and 1980.

Circulation. Figure 11 shows the existing circulation facilities in the Northampton CBD. The convergence of four major highways on the CBD, namely, Route 5, Route 9, Route 10, and Route 66, has produced major traffic loadings on Main Street and the two intersections at each end of the main business street. The traffic volumes on these major roadways are shown on Figure 11. The high traffic volumes on Main Street increase the conflicts with the pedestrian crossing Main Street and with vehicles parking on Main Street, especially in the angle parking location. These conflicts are a major deterrent to the smooth flow of traffic.

The two intersections, which are major problems, namely the Main, South, State, Elm, and West Street intersection and the Main, Pleasant, and King Street intersection were studied for the city under the TOPICS program. Recommendations have been made for their improvement.

Pedestrian circulation in the CBD is primarily via sidewalks which exist on all streets. The pedestrian crosswalks are located as shown on Figure 11. According to a local City ordinance, pedestrains within the crosswalks have the right-of-way crossing the street. According to such ordinance, if a pedestrian steps off the curb intending to cross the street, any vehicles in the near lane along the street are required to stop and allow the pedestrian to pass.

Certain problems with pedestrian circulation exist.

1. The operators of many of the vehicles along Main Street either are not aware of the pedestrian right-of-way law or they do not pay attention to the law.

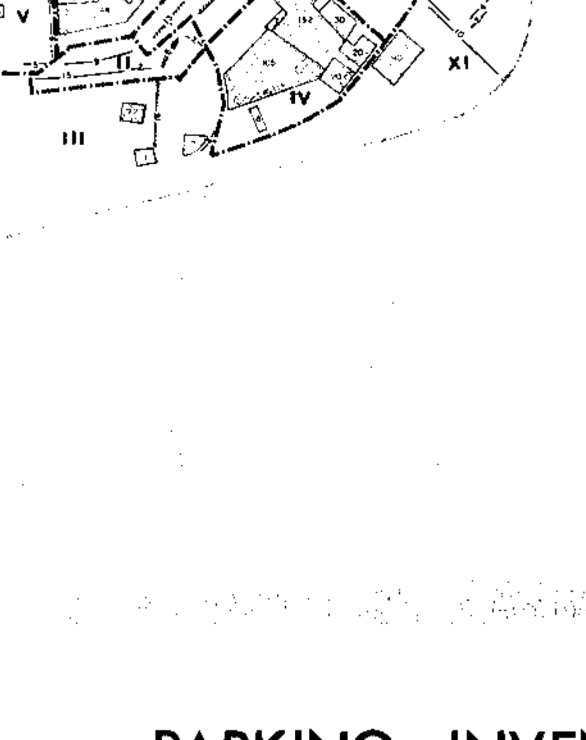
2. Access for pedestrians from the parking areas located to the rear of the stores on both sides of Main Street is extremely poor. With respect to the parking lots behind the southern side of Main Street, access must be either around the block or through stores which have rear entrances. On the northerly side of the street, access is somewhat better. However, the alleyway between the buildings opposite City Hall is used by both vehicles and pedestrians without the availability of sidewalks.

Parking. The locations of all parking spaces in the CBD are shown on Figure 12.

Within the study area, there are 1,542 parking spaces, of which some 1,198 are available to the general public without restriction. The remaining 344 spaces are restricted to some individual or group of specific users.

Parking space occupancy, the percent of time that the space is occupied, is the key indicator of the parking demand in a particular area. The higher the percentage, the more likely that there is a parking space problem.

On Thursday, November 5 and Saturday, November 7, 1970, parking surveys were carried out by Metcalf & Eddy. On Thursday 20 counts of parking space occupancy were made, averaging approximately 39 minutes between counts from 8 a.m. to 9 p.m. On Saturday counts were taken every 45 minutes between 9 a.m. and 6 p.m.



PARKING INVENTORY
CBD

For purposes of these parking surveys and analysis, the CBD was divided into 12 sectors. The limits of these sectors are shown on Figure 12.

The results of these surveys are presented in Appendix Table B-1. Occupancy of 80 percent or better was in evidence from about 9:30 a.m. to 4:00 p.m. on Thursday. In addition, the occupancy rate exceeded 90 percent between 9:30 a.m. and 11:30 a.m. Eighty percent capacity is considered the practical capacity for the combination of various types of parking facilities in the Northampton CBD. Thus, there appears to be a critical parking deficiency.

On Saturday, the parking occupancy rate exceeded 70 percent between 10:30 a.m. and 3:00 p.m. The type of parking on Saturday was heavily concentrated with the shopper whereas on Thursday there was probably a reasonable balance between the shopper and the employee. Shopper parking cannot achieve the same degree of utilization as employee parking primarily because of parking space turnover. Normally 55 to 60 percent occupancy is reasonable. Therefore, even on Saturday, in order to allow proper turnover, there appears to be a serious parking deficiency.

Each individual sector experiences similar parking deficiencies. Sectors I and II combining upper Main Street on-street parking areas are occupied in excess of 80 percent for all periods during both Thursday and Saturday except the dinner period on Thursday and after 4 p.m. on Saturday. Occupancy in excess of 90 percent is very frequent. Also illegal parkers were noted (occupancy in excess of 100 percent).

Sectors IV and VI, the sectors with the major off-street facilities behind the upper Main Street stores, show heavy utilization on Thursday, through 8 p.m. On Saturday, the occupancy rate is lower but still excessive for shopper use.

Our parking surveys and information obtained in interviews with various individuals and groups with special interests in the CBD indicate that other problems relative to parking exist. These problems are:

1. There is inadequate enforcement of parking regulations resulting in numerous violations. This is a particular problem with respect to permitting a long-term parker to utilize space where meters restrict use to the short-time parker.

2. Employee use of short-time parking meters for all-day parking by "feeding" the meters is a common practice.

3. In the winter, snow is piled so that space is lost and pedestrian circulation is hampered.

4. Parking on the fringe areas of the CBD is light. This is due largely to the lack of visibility of the destination to the parker, not to distance.

The demand for parking is also measured by relating the amount of parking area available to the floor area of the commercial, public, and other land uses in the CBD.

At the present time, the study area contains approximately a 0.5:1.0 ratio of parking area to total floor area, excluding single-family, two-family, and multifamily dwelling areas. Most modern shopping centers, where there are only off-street parking spaces, provide for a 3.0:1.0 to 5.0:1.0 ratio of parking area to floor area. However, for Northampton, it appears reasonable that a parking ratio of 1.0:1.0 be achieved.

Therefore, on this basis, an additional 1,400 to 1,500 parking spaces should be provided to meet present demands. In addition, the number of spaces projected for use by the county office complex including the existing facilities and the new court house is 415. Beyond this, the number of spaces required for future expansion of the CBD is assumed to be zero. However, any existing spaces which are lost to new construction must be replaced.

Housing and Environmental Conditions

The housing and nonresidential structures in the CBD are generally standard or of intermediate condition. Substandard structures are generally interspersed among the good structures and presently there do not appear to be any major concentrations. However, four locations are worthy of specific mention. The Pleasant Street, Main Street, Strong Avenue, Pearl Street block contains 28 structures, of which approximately 65 percent are classified as having one or many critical defects requiring repair beyond that provided in normal maintenance.

The second location is along Gothic Street and Allen Place. The substandard housing structures to the rear of the Hall of Records building will be eliminated as part of the Court House expansion.

The third location is the block bounded by Center Street, Masonic Street, Main Street, and State Street. This block contains mostly intermediate condition structures indicating that the area could deteriorate into substandard conditions if needed improvements are not undertaken immediately.

Finally, the Hampton Avenue area contains a mixture of open blight, spotted substandard structures, and sound buildings.

Other environmental problems in the CBD include the overhead wires, rear building facades, and darkness of rear areas at night. On the other hand there are certain environmental assets. These include the openness of Main Street, the overall cleanliness of the area, and the historical significance of some of the buildings.

Future Role of the CBD

Downtown Northampton was once the major regional shopping area for most of Hampshire County. Its role has been changing over the past 20 years as new and competing shopping areas have started to develop in neighboring communities as well as within Northampton. As a result, there has been some shift in the type of business activity and the extent of business activity in downtown Northampton especially in very recent years. Whereas at one time the main north-south highway route for the Connecticut River Valley came through downtown Northampton via Pleasant Street and King Street, the recent completion of Route I-91 has changed the overall traffic patterns. Also it has opened up new areas adjacent to interchanges for possible development of regional shopping facilities. However, certain activities have remained in downtown Northampton, which must be retained to keep the viable nature of the area. These include the city governmental activity and the county governmental complex. Thus, the future role of the downtown must include the city and county civic activity. In addition, the area should develop as a cultural center and concentrate certain cultural activity in and adjacent to the CBD such as museums, the Academy of Music, the library, and Smith College. In addition, the Northampton Junior College is on the fringe of the downtown area. These cultural activities attract people to the area, which in turn assists in the overall business and economic activity.

Because of the competition of outlying shopping centers and their ability to effectively compete in the general merchandising types of activities, the downtown area should concentrate its efforts on promoting specialty merchandising. Although a general merchandising type store should be part of the downtown area, it should be recognized that this is not the predominant retail activity which should be a part of the future Northampton CBD.

Finally, the downtown area should orient its economic trade toward customers who are either employees of various businesses in the area, customers who have come to the CBD for other cultural, civic or business purposes, and to the residents of the Northampton urban core.

Thus, the future role of the CBD may be defined as that of a civic, cultural, and specialty merchandising center, with orientation primarily to the Northampton urban core.

Recommendations

The three major elements which are critical to the future success of the downtown area are people, parking, and access. People must be able to conveniently come and use the downtown area. People must be located or residing in close proximity to the downtown area so that they want to use the area for business, cultural activities, and shopping. Easy, safe, and convenient parking is a requirement for both employees and shoppers. With present reliance primarily on the automobile, access for the automobile and the pedestrian is also a critical element to the future downtown area. Clumsy and congested access to parking areas greatly hinders the desirability of the area for use. Pedestrian access to shopping areas must also be visual as well as direct, convenient, and safe.

Policies. The following policies were used as the basis of the CBD plan for Northampton:

1. The CBD should be planned as a civic, cultural, and specialty

merchandising center oriented primarily to the Northampton urban core.

2. The CBD plan should be capable of being carried out in small individual steps with a minimal amount of dependence on each other, and the CBD should be able to function reasonably and properly after each individual step.

3. A policy of reevaluation should be carried through the implementation of this plan.

4. The implementation of this plan should be the cooperative efforts of the City, the County, and Greater Northampton Chamber of Commerce, the Downtown Merchants' Association, and other private groups where appropriate.

CBD Plan and Program

The recommended central business district circulation, parking, and land use plan is presented on Figure 13. The following are the principal elements of the plan:

1. *Land Use.* It is proposed that retail activity continue to be centered along Main Street. The extent of retail activity should remain generally as exists today. However, the ability to expand is provided in two manners; one, vertically into the upper floors of existing buildings (into areas presently either vacant or occupied by offices); the other, to the south around the top level of the proposed multi-level parking structure on the Armory Street lot.

   The lower Main Street area is proposed for future renovation and redevelopment as primarily office business uses.

   Present municipal offices should be expanded when needed in the area now being utilized thereby concentrating municipal activity in this area.

   The county governmental functions are proposed to be concentrated at their present location with expansion along Gothic Street and to the east of King Street.

   For the present, it appears that the Northampton Junior College would continue to occupy its present site.

   Public parks are also a proposed land use. A terraced park is proposed across from the bus terminal along Old South Street. The existing city park between the Academy of Music and the Memorial Hall would remain.

2. *Circulation and Parking.* It is proposed that two CBD service roads be developed and that the northerly service road in conjunction with Main Street form a one-way east-west traffic system.

   A total of 1,866 new off-street parking spaces are proposed including 1,705 new spaces and 161 spaces for replacement of existing spaces lost during the implementation of the improvements recommended in this plan. Multi-level parking structures are proposed over the present Armory Street lot, the Masonic Street lot, and a new lot adjacent to the Gas Company.

3. *Implementation.* It is recommended that the overall leadership for implementation be taken by the City. However, it is extremely important that the cooperation of several groups be combined. The groups which must participate together are the County; the Downtown Merchants' Association, a branch of the Greater Northampton Chamber of Commerce; the Northampton Industrial Realty Development Corporation (NIRDC); and the Northampton Redevelopment Authority (NRA).

Urban renewal should be used to implement the portions of the CBD Plan within the areas designated on Figure 14 and Figure 15.

The program of specific improvements is recommended below by stages.

Stage I, 1972-1978

Figure 14 shows the elements of the CBD plan recommended for implementation during Stage I, 1972-1978. The elements of this plan are listed below.

Urban Renewal Project. The initial urban renewal project affecting the CBD is proposed to be combined with a project for the lower Pleasant Street area and should be initiated by the city in 1973. At this time it appears that the project should be carried out under the Federal NDP (Neighborhood Development Program). The boundary of the area within the CBD to be considered in the initial project is shown on Figure 14. Within the CBD portion of the project, the following improvements should be constructed in accordance with the detailed urban renewal plans:

1. The new south service road from Pleasant Street to Conz Street.

2. Additional off-street parking as shown on Figure 14, including decked parking over the Armory Street lot only if found feasible under studies to be carried out prior to commitment to this project.

   In addition, visual access between the parking area to the south of Main Street and Main Street should be provided. This should be coordinated with the decking of the parking lot on Armory Street.

Other Circulation Improvements:

1. Prepare the preliminary engineering plans and design and construct the north service road link between King Street and Masonic Street.

2. Make the following traffic circulation changes:

   a. Convert Armory Street to one-way traffic west.

   b. Convert State Street to one-way north from Main Street to Center Street.

   c. Close Gothic Street between Court Street and the north service road.

   d. Eliminate left turns from Main Street easterly to Center Street and from Main Street easterly to Gothic Street; and from Main Street westerly to Old South Street.

   e. Convert Craft Avenue to one-way traffic in a southerly direction and convert Old South Street to one-way traffic in a northerly direction.

3. Carry out improvements under the topics program for the key intersections in the CBD: namely, Main, State, and South streets, and Main, King, and Pleasant streets.

Other Parking Improvements:

1. Establish and carry out an overall parking enforcement program.

2. Carry out present plans to convert certain short-time meters to long-time meters and vice versa so that the all-day parker may find metered space more distant from the Main Street while the shopper may find short-term parking space in close proximity to Main Street.

3. Provide additional parking space as follows:

   a. 240 spaces in connection with the new court house.

   b. 200 spaces for all-day parkers remote from the downtown next to the Gas Company as shown on Figure 14.

4. Eliminate angle parking on Main Street.

5. Carry out recommendations 1 through 4 immediately. Evaluate the entire parking situation after one year of operation.

Other Recommendations.

1. Prepare a computerized method for evaluating the results of new circulation and parking construction, changed regulations, and new development for the CBD.

2. Undertake a sign program to inform motorists of the pedestrian right-of-way law and to inform parkers that "feeding the meters" is illegal.



CBD Boundary

Future Land Use

- Commercial
- Public and Quasi-Public
- Park, Open Space and Mall
- Parking Garage
- Parking Lot

Circulation

- Future CBD Roadway Network
- Direction of Traffic Flow

LAND USE AND CIRCULATION PLAN CBD

Fig 14

June 1971

Preliminary Urban Renewal Project Area Within CBD

CBD Boundary

Preliminary Urban Renewal Project Boundary

CBD Roadway Network

Direction of Traffic Flow

Off-Street Parking Facility and Capacity

Parking Garage and Capacity

NORTHAMPTON, MASSACHUSETTS

CIRCULATION AND PARKING PLAN CBD

STAGE I

1972-1978

3. Coordinate planning of circulation and parking with the construction of a new county court house and office building.

4. Enact zoning changes recommended in Part III of this Comprehensive Plan.

5. Continue to carry out promotional activity for merchandising in the downtown area.

6. Provide additional municipal office space as proposed in the City Buildings chapter of this Comprehensive Plan.

Stage II, 1978-1984

Figure 15 shows the circulation and parking improvements which would be in operation by the end of Stage II, thus combining all Stage I and Stage II improvements. The elements of Stage II of the CBD plan are listed below.

Urban Renewal Project. A second urban renewal project affecting the CBD is proposed. At this time it appears that the project should be carried out under the Federal NDP program. However, because of the constant changing in the federal programs and their particular suitability to local situations, the actual program used should be determined at the actual time of initiation. The boundary area within the CBD to be considered in this project is shown on Figure 15. Within the CBD portion of the project, the following improvements as shown on Figure 15 should be constructed in accordance with the detailed urban renewal plans:

1. The new south service road from Pleasant Street to Main Street.

2. The new north service road from King Street to Bridge Street.

3. Additional off-street parking for the county court house complex east of King Street.

4. Expansion of off-street parking in the Strong Avenue area.

Other Circulation Improvements.

1. Design and construct the extension to the north CBD service road from Masonic Street to Elm Street.

2. Convert Masonic Street to one-way traffic south; convert Center Street to one-way traffic north.

Other Parking Improvements.

1. Evaluate the parking situation as a result of improvements constructed under Stage I.

2. If warranted based on actual use, construct additional off-street parking facilities as follows:

   a. Decked lot over Masonic Street lot, including telephone company lot, providing a total of 140 spaces.

   b. Expand parking adjacent to Newberry's lot and improve layout so that total area accommodates approximately 140 spaces.

Other Recommendations.

1. Relocate the Masonic Street Fire Station according to recommendations in the City Buildings chapter of this Comprehensive Plan.

2. Provide visual access from the rear of the buildings on the north side of Main Street to Main Street. Include a pedestrian way with appropriate planting between Main Street and the decked Masonic Street lot.

Stage III, 1984-1990

This final stage of development is intended to complete the overall circulation and parking plan as presented in Figure 13. The following specific improvements would be carried out under this Stage III:

Circulation Improvements.

1. Incorporate a one-way street pattern between State Street and Hawley Street with Main Street one-way east and with the new north CBD service road one-way west.

2. Narrow pavement of Main Street and widen pedestrian ways, install landscaping and other appropriate beautification for pedestrian ways.

Parking.

1. Evaluate the parking situation as a result of improvements constructed under Stage II.

2. If warranted based on actual use, construct additional parking as follows:

    a. Expand Gothic Street lot to provide for a total of 300 spaces.

    b. Provide a deck over the Gas Company lot, expandable to a second deck.

    c. Replace angle parking on Craft Avenue with parallel parking.

    d. Eliminate off-street parking space for seven vehicles on Old South Street.

    e. Eliminate the City Hall off-street parking of 22 spaces, the area to be used as required for City Hall expansion and park area. Decked lot to rear to be used by City Hall employees.

Other Recommendations.

1. Develop terraced park along Old South Street.

2. Carry out beautification project along Main Street, widening the sidewalks and providing appropriate planting along with other appropriate improvements. These improvements would be possible at this time since Main Street would be converted to one-way traffic.



CIRCULATION AND PARKING PLAN CBD

STAGE II

1978 - 1984

CODES AND ORDINANCES

One important means of implementing the Comprehensive Plan is by adopting and enforcing legal regulations on development, both existing and new. In this chapter of the Comprehensive Plan, recommendations are made concerning the control of new development through zoning and subdivision regulations and concerning the preservation and improvement of existing development through a system of city codes.

Zoning

The existing Northampton Zoning Ordinance, Chapter 44 of the Revised Ordinances of Northampton, 1959, as amended, was originally adopted in 1949. Amendments have been made to the ordinance over the past 23 years, but much of the original ordinance still remains. A comprehensive revision to the present zoning ordinance is recommended. Our Recommended Revised Zoning Ordinance and Map is presented in a separate document. Among the most significant changes from the existing ordinance are the following:

1. The zoning map is changed to reflect the change to a restricted land use policy as discussed in a previous chapter. Thus, extensive areas now zoned for single-family houses on 15,000 sq ft are recommended for rezoning for single-family houses on 50,000 sq ft.

2. A flood-plain zone is recommended for adoption incorporating lands within the Connecticut River flood plain.

3. A superimposed zone for flood-prone areas is recommended as protection of these flood hazard areas against encroachment by development.

4. A five-man Board of Appeals is recommended for consideration as opposed to the present three-man board.

5. Several modern innovative zoning techniques are recommended including Cluster zoning, Planned Unit Development, and the Watershed Protection district (a superimposed zone).

Land Subdivision Regulations

The existing Northampton subdivision regulations were adopted in 1954. Only a few amendments have been made since then. A comprehensive revision to these regulations is recommended. Our Recommended Revised Rules and Regulations Governing the Subdivision of Land is presented in a separate document. Among the most significant changes from the existing ordinance are the following:

1. A distinction is made between subdivision for residential purposes and subdivision for commercial, industrial, and multifamily residential purposes, allowing for appropriate variations in street and utility designs.

2. Control is given to the Planning Board under the authority granted by Section 81-Q of Chapter 41 of the General Laws, over the development of a single lot with more than one building used for residential purposes.

3. More detailed design standards are presented along with typical cross-section drawings showing roadway sections, and utility placements.

City Codes

The following system of codes is presently enforced in Northampton:

Type	*Code designation*
Building	BOAC (Building Officials Conference of America) Basic Building Code, 5th Edition, 1970.
Housing	Article II of the Massachusetts State Sanitary Code, the Minimum Standards of Fitness for Human Habitation.

Plumbing	Massachusetts State Plumbing Code, revised in 1971.
Wire	National Electrical Code, 1969 Edition.
Sanitary	Article XI of the Massachusetts State Sanitary Code.
Fire Protection	State Board of Fire Prevention Regulations

In the general review of present codes, code enforcement procedures, and administration, the following deficiencies are noted:

1. The present committee for code review is inactive and thereby is not keeping abreast of changing situations relative to codes and code enforcement. This is unfortunate especially where the granting of certain federal funds to the city may be contingent upon the acceptability of the codes to a particular Federal agency.

2. The present building, housing, and electrical codes appear to be adequate for the City at this time.

3. The present plumbing code for the state is in conflict with certain requirements now being dictated by the Federal Department of Housing and Urban Development. As a result, funds of the Department of Housing and Urban Development could be withheld from cities and towns in Massachusetts, including Northampton, if the required plumbing code revisions are not adopted by the State Plumbing Board of Examiners. This situation is still unresolved. The City should keep abreast of this situation so that it can apply pressure where necessary for protection of its own interests in Federal funds.

The City should review its present fire prevention regulations with an eye towards adopting a national fire prevention code such as that approved by the American Insurance Association (formerly the National Board of Fire Underwriters). The present regulations are comparable to the national code, in all elements covered by both. However, the national code is more comprehensive.

The State Sanitary Code, Article XI as applies to the installation of on-lot sewage disposal systems, is generally accepted as the minimum standards for a community. However, strengthening of these regulations could be required. One common problem relates to the determination of groundwater level. Under the Sanitary Code, determination of groundwater levels "Should be made during the period of the year when the groundwater table is at its highest elevation." At times, the City finds it difficult to delay a developer to the month of the year when such conditions exist. Therefore, local regulations should be adopted to requiring core boring tests from which soil profiles may be read and hence maximum groundwater levels determined.

Recommendations

Based on our review of present codes and enforcement procedures, the following recommendations are made:

1. The City should continue to carry out the pilot code enforcement program.

2. The City should make application to and participate in the Federally assisted concentrated code enforcement program. Priority should be given to the Bridge Street-Williams Street area.

3. The City's code enforcement office should be incorporated under recommended City Planning and Development Department.

4. A code review procedure should be established immediately and when a new City Planning and Development Department is established, incorporate the review procedure under this department. An immediate aim of this review procedure should be to determine whether the recent changes in the State Plumbing Code will be accepted by HUD and if not, what must be done to ensure the City's continued eligibility for various HUD programs.

5. The City should review and adopt a national fire prevention code for the City in order to strengthen the present fire prevention regulations.

GOVERNMENTAL ORGANIZATION FOR PLANNING IMPLEMENTATION

The Northampton Comprehensive Plan is a policy statement on community development over the next 20 years. It presents the policy of development and the program of physical improvements to serve development according to that policy. The comprehensive plan is not self-implementing. The plan is worthless to the community unless it is properly updated, administered, and implemented. This section of the Comprehensive Plan evaluates the present means employed by the city to implement planning proposals and recommends changes for more effectively carrying out the recommendations of this Comprehensive Plan and other planning recommendations to the city.

Present Organization for Planning Implementation

The prime responsibility for planning implementation presently rests with the Northampton City Council, the Planning Board, and the Mayor. Secondary responsibility for implementation rests with the individual departments and boards within the City. Individually each board and department sets its own policies and adopts its own program of activities. In addition, in 1969 the Mayor appointed a Citizens Advisory Committee. This committee, consisting of 28 members, has the stated purpose of aiding and supporting the development and carrying out of the workable program for community improvement.

Many plan proposals have been made throughout this Comprehensive Plan. Some are urgently needed, others should be carried out as the demand occurs several years in the future. The present governmental structure in Northampton allows for the implementation of the recommendations of the Comprehensive Plan. However, there are certain problems and limitations inherent in the present structure. These are as follows:

1. Presently most planning, to the limited extent performed, and development functions in the city are coordinated through the office of the Mayor. Whereas this is not itself inappropriate, the magnitude of the function of adequately coordinating all development work within the city is far beyond that which can appropriately be performed by one man, the Mayor, with his other duties and functions. As development and redevelopment activities in the city increase in the future, the limitations of the Mayor's office to adequately carry out this function will become more obvious.

2. The development functions of the city government should all be coordinated through a single administrator. Presently the Redevelopment Authority and the Housing Authority are semi-autonomous and with few exceptions are free to plan development projects without any contact with other city agencies.

3. Other planning functions, such as the preparation of the city's comprehensive plan and zoning amendment reviews, are now carried out by the Planning Board and consultants. The Planning Board itself is limited in time, and they are a lay board without professional expertise in many planning matters. Although they are conscientious in their work, they cannot be expected to do the complete research investigations which may be required in matters which come before them. The use of planning consultants is not in itself poor practice but with the size of the city and its expanding planning function, consultant use could be limited to those areas where expert advice is needed on particular items.

4. The planning administration function, with respect to subdivision control administration, is carried out by the City Engineer. His duties as City Engineer are increasing and already require his full-time attention.*

5. The function of capital improvements budgeting and programming has been ignored until recent months. Now, through the actions of the Mayor, a special committee is being formed to carry out this function. Even with this committee, there will be no full-time professional staff to carry out the programming process annually.

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*Engineering reviews, construction inspections and all other engineering aspects of subdivision control should remain with the City Engineer.

6. There is a lack of professional full-time staff advisors to the Mayor in certain areas of development. These include the following:

   a. Municipal planning.

   b. Industrial development.

   c. Urban redevelopment.

7. The trend in federal funding of numerous planning and development programs is toward the requirement that a local community development department be available to administer funds and carry out programs. The city's eligibility for federal funds under said requirements may be lost under the present planning administrative organization.

Based on our analysis above, the following major conclusions were reached:

1. The city should establish the appropriate governmental structure for retaining its eligibility for funds from various federal and state planning and development programs.

2. All city development activities should be controlled and coordinated through a single administrator.

3. There is a definite need for a full-time technical staff to carry out the planning function within the city.

4. The Comprehensive Plan should be actively updated, administered, and implemented.

Recommendations

In order to meet the major needs for accommodating the future planning function within the city government structure, the following alternatives exist:

1. Establishment of a City Planning and Development Department directly responsible to the chief executive, the Mayor.

2. Establishment of a Planning Department responsible to the chief executive, the Mayor, either directly or through the Planning Board.

It is recommended that the city planning function be established in two steps. Initially, alternative 2 above would be followed with the hiring of a city planner. Subsequently, after the experience of other communities is evaluated as noted below, the City of Northampton would establish a City Planning and Development Department within the executive branch of its government. This department would be directly responsible to the Mayor and would be under the direction of a City Planning Coordinator.

We recommend that the following functions be incorporated into the City Planning and Development Department:

1. The City Planning function.

2. The City Redevelopment and Renewal function.

3. The City Housing function.

4. The City Code Enforcement function.

5. The City Industrial Development function.

A City Planning and Development Board would be created to oversee certain functions of the City Planning and Development Department and to fulfill certain requirements of state legislation relating to planning, redevelopment, and housing. It would function as the Planning Board in administering subdivision control and proposing zoning changes. It would function as the Redevelopment Authority under Chapter 121, Massachusetts General Laws. Similarly, it would function as the Housing Authority.

A special act of the state legislature would be required to implement this recommendation. The Town of Arlington recently had such legislation enacted. In 1967 the City of Lowell had legislation enacted which combined their Housing, Redevelopment, and Planning functions. However, in preparation for carrying out this recommendation, we urge the city to thoroughly investigate the proper legal means by which this should be done.

CAPITAL IMPROVEMENTS PROGRAM

In order to program the recommended improvements of the Northampton Comprehensive Plan, an analysis was made of the City's past and present financial situation and fiscal projections were made for the next six years. Estimates were then made of the amounts the city might be able to afford to spend on capital improvements. Finally, a program was prepared scheduling the expenditure of capital improvement funds over the next six years. This schedule and identification of the most urgent projects are presented in this chapter.

Present Financial Status

Northampton is presently in a situation similar to that of many Massachusetts communities. High material costs coupled with the demands of collective bargaining have inflated operating costs and equipment replacement costs far beyond available receipts based on past tax rates.

In 1971 the state legislature enacted two programs which are expected to provide some relief for the local taxpayer.

The first of these is the state lottery which began in January 1972. At this time no estimate csn be made of the amounts of money that might be available over the next six years from the lottery for distribution to the cities and towns.

The second program is an amendment to the School Building Assistance Statute which provides for state funds to cover the interest as well as the principal on a bond issue for an approved school construction project. In addition the law provides that communities in areas listed by the U. S. Labor Department as high unemployment areas are now eligible to receive from the state 65 percent of the construction cost. At the present time Northampton is listed under this provision as eligible for 65 percent state school building assistance.

While these two programs may provide considerable relief, it is anticipated that if present spending and cost trends continue, tax burdens will remain heavy.

In addition the City has in the past failed to provide, or been unable to provide, many needed capital improvements and is now faced with a backlog of necessary projects. These, coupled with meeting current needs, will cause large increases in the city's tax rate, but the problem will be compounded the longer these improvements are put off.

It is worthwhile to note that Northampton has a very large available borrowing capacity inside the debt limit, since many of our recommended improvements fall into this category.

Capital Improvements Program, 1972-1978

The various capital improvements needed to support only modest population growth and to give effect to the city's long-range land use plan, have been presented in the Northampton Comprehensive Plan reports. The proposed capital improvements covered the acquisition of land, sewer and drain improvements, school facilities expansion, road improvements, and a host of others.

The heads of city departments were also consulted as to their equipment needs over the next six budget periods and project plans which they have made in addition to the Comprehensive Plan. These items were used to supplement the Comprehensive Plan recommendations.

Table 23 lists the schedule and estimated costs for the various recommended capital projects to be undertaken over the next six budget periods. Our fiscal projections and Capital Improvements Program has been organized for six budget periods, the second of which is for the 18 months, January 1 1973 to June 30, 1974. This in accordance with the State law enacted in 1969 and subsequently amended which requires that all cities and towns convert from a calendar budget year to a fiscal budget year. The law directed that this shall be accomplished by having an 18-month budget period, now scheduled from January 1, 1973 to June 30, 1974.

TABLE 23. SIX-YEAR CAPITAL IMPROVEMENTS PROGRAM, 1972-1978
(DOLLARS)

Department and project	Calendar year		Fiscal year			
	1972	*January 1, 1973 to June 30, 1974*	*1975*	*1976*	*1977*	*1978*
General Government						
Assessor						
1. Revaluation	–	–	–	–	100,000	–
City Property						
1. Purchase Gas Company Building	–	5,000	(32,000)	(30,800)	(29,600)	(28,400)
2. Renovation of City Hall and Gas Company Building	–	–	10,000	100,000	100,000	–
3. Computerization	–	–	–	–	15,000	75,000
Public Works – Engineer						
1. Equipment	1,500	5,000	–	–	–	–
Public Safety						
Police						
1. Police Station Expansion	–	–	–	4,000	–	–
2. Police Vehicles and Radios	12,100	14,400	13,000	17,000	14,500	16,700
Fire						
1. New Florence Station	25,000(1)	(38,400)	(36,960)	(35,520)	(34,080)	(32,640)
2. Fire Vehicles	4,000	–	–	–	–	5,000
3. Fire Fighting Equipment	1,250	1,250	–	–	65,000	–
4. New Headquarters Fire Station	–	–	–	–	–	10,000

TABLE 23 (Continued). SIX-YEAR CAPITAL IMPROVEMENTS PROGRAM, 1972-1978
(DOLLARS)

Department and project	Capital year		Fiscal year ending			
	1972	*January 1, 1973 to June 30, 1974*	*1975*	*1976*	*1977*	*1978*
Health and Sanitation						
Board of Health						
1. Solid Waste Disposal Site	–	5,000	(14,400)	(13,860)	(13,320)	(12,780)
Public Works – Sewer Division						
1. Engineering Study	40,000	–	–	–	–	–
2. Sanitary Sewer Construction Phase I	19,300	(25,500)	(24,650)	(23,800)	(22,950)	(22,100)
3. Storm Sewer Construction	7,800	–	20,000(1)	(55,000)	(53,500)	(52,000)
4. Florence Road Sewer	–	27,000	–	–	–	–
5. Land Acquisition		1,000	–	–	–	–
6. Sanitary Sewer Construction Phase II	–	50,000(1)	(110,000)	(107,000)	(104,000)	(101,000)
7. Retaining Wall Construction	–	11,500	–	–	–	–
8. Equipment	–	23,000	–	–	–	–
9. Sanitary Sewer Construction Phase III	–	–	–	–	20,000(1)	(38,500)
Highways and Bridges						
Administration and Purchasing Division						
1. Office and Garage Addition to Public Works Building Complex						
a. Engineering Division Office	5,000	(14,250)	(13,775)	(13,300)	(12,825)	(12,350)
b. Water Division Office and Garage	–	10,000	(30,000)	(29,000)	(28,000)	(27,000)
Equipment and Maintenance Division						
1. Equipment Replacement	31,200	46,500	59,200	64,100	22,700	29,100

TABLE 23 (Continued). SIX-YEAR CAPITAL IMPROVEMENTS PROGRAM, 1972-1978
(DOLLARS)

Department and project	Calendar year		Fiscal year			
	1972	January 1, 1973 to June 30, 1974	1975	1976	1977	1978
Street Division						
1. Chapter 90 and Other Road and Bridge Construction	91,500[1]	55,000[1]	90,000[1]	75,000[1]	25,000[1]	125,000[1]
2. Snow and Ice Removal	6,000	1,000	1,000	–	–	30,000
3. Off-Street Parking	4,000[1]	–	–	–	–	–
4. Street Signing and Crosswalks	3,000	6,000	1,000	3,500	–	2,500
5. Sidewalk Construction	2,500	16,000	16,000	16,000	16,000	–
6. Equipment	–	–	–	–	–	50,000
Schools and Libraries						
Schools						
1. Addition to Ryan Road School	–	(29,920)	(27,520)	(25,120)	(22,720)	(20,320)
2. Site Acquisitions	30,000	–	–	40,000	–	–
3. Improvements to various schools including air conditioning, television distribution, insulation, and others	53,500	8,000	–	–	–	–
4. New South School	–	30,000	–	(165,130)	(156,730)	(148,330)
5. Addition to Jackson Street School	–	–	(29,920)	(27,520)	(25,120)	(22,720)
6. Renovation of Bridge Street School	–	–	–	100,000	–	–
7. High School Additions, Renovations, and Improvements	–	–	–	16,000	34,000	(112,500)[1]
8. New Burts' Pit Road School, Preliminary Plans	–	–	–	–	30,000	–
Smith School						
1. Equipment	17,100	8,000	3,000	1,500	1,500	–
2. New Fixtures and Wiring, Machine Shop	2,500	–	–	–	–	–
3. New Building	–	–	–	50,000	70,000	(279,200)

TABLE 23.(Continued). SIX-YEAR CAPITAL IMPROVEMENTS PROGRAM, 1972-1978
(DOLLARS)

	Capital year		Fiscal year			
Department and project	*1972*	*January 1, 1973 to June 30, 1974*	*1975*	*1976*	*1977*	*1978*
Forbes Library						
1. Building Renovations	5,700	12,000	30,000	(36,800)	(35,420)	(34,040)
2. Parking and Drainage	2,500	–	–	–	15,000	–
Lilly Library						
1. Renovations and Off-Street Parking	–	–	–	30,000	–	–
Recreation and Unclassified						
Recreation						
1. Acquisition of Land	1,100	3,000	3,000	3,000	3,000	3,000
2. Improvements to Existing Recreation Sites	11,700	16,800	20,000	5,200	13,100	4,000
3. Mini-park development	–	4,000	4,000	4,000	4,000	4,000
DPW – Parks and Cemetery Division						
1. Cemetery Improvements	6,000	10,000	6,000	–	20,000	5,000
2. Leeds Playground, Wading Pool	1,500	–	–	–	–	–
3. Tree Nursery and Tree Planting Program	1,000	5,000	5,000	-	–	5,000
4. Indoor Skating Rink	–	–		10,000	–	–
5. Cemetery Land Acquisition		–	–	–	–	50,000
Conservation						
1. Operational Soils Survey	5,000	-	–	–	–	–
2. Mill River Greenbelt Acquisition and Development	30,000	30,000	30,000	30,000	30,000	60,000
3. Open Space Land Acquisition	–	–	20,000	20,000	20,000	20,000

TABLE 23 (Continued). SIX-YEAR CAPITAL IMPROVEMENTS PROGRAM, 1972-1978
(DOLLARS)

	Capital year		Fiscal year			
Department and project	*1972*	*January 1, 1973 to June 30, 1974*	*1975*	*1976*	*1977*	*1978*
DPW – Water Division						
1. New Baker Hill Standpipe(1)	–	(55,000)	(53,500)	(52,000)	(50,500)	(49,000)
2. Clean and Paint Leeds Elevated Storage Tank	10,000	-	–	–	–	–
3. West Whately Reservoir Planting	.	5,000	–	-		–
4. Water System Improvements	.	16,000	36,000	16,000	–	45,000
5. New North Farms Road and Route 66 Elevated Tanks	–		–	–	60,000	60,000
6. Transmission Main Improvement	.	.	–	-		12,800
Northampton Redevelopment Authority						
1. Pleasant Street, Main Street Urban Renewal	–	7,500	25,000	–	–	(425,000)
Stabilization Fund	20,000	20,000	40,000	40,000	40,000	40,000

( ) Indicates Debt Service Payment, including interest. Debt service payments in all cases continue beyond the six budget periods of this program.
1. Indicates project budgeting anticipates receiving outside funds which have been accounted for in the projections.

Note: All costs are preliminary estimates for budgeting purposes only. Final cost estimates should be based on detailed plans and specifications to be developed for each project prior to budget appropriations.

Impact of Recommended Capital Improvements Program. Table 24 shows the fiscal projections for Northampton, incorporating the recommended capital improvements program presented in Table 23. According to these projections, an increasing tax rate is forecast, growing from $55.99 in 1972 to $71.53 in 1978. These projections are based on the present assessment ratio (ratio of assessed value to full value) and further on the probable impact of recommended revaluation to be felt in 1978. This growth of the tax rate is felt to be at the maximum acceptable level. However, to maintain this level and complete the specified projects, the operating budgets should be restricted to (or preferably below) the levels we have projected. This should be possible since our projections are based on experience during the highly inflationary period, 1968-1970.

Programming on an Annual Basis

It is recommended that the Capital Improvements Program (CIP) be reviewed each year, and revised where necessary in keeping with changing needs and resources. Emphasis should be placed on the upcoming two years.

An annual review of the Capital Improvements Program can be of immeasurable benefit to the city. By submitting a six-year Capital Improvements Program each year, department heads can look ahead, and better coordinate projects one with the other. As various projects approach the year scheduled, unforeseen needs, or the availability of additional resources, may also require changes in the program. For these reasons, updating each year may add immeasurably to its effectiveness as an instrument to ensure a continuity of long-range improvements related to an overall view of community needs and to the achievement of citywide objectives expressed in the Comprehensive Plan.

TABLE 24. FISCAL PROJECTIONS, 1972-1978
(IN THOUSANDS OF DOLLARS)

	Calendar year		Fiscal year			
	1972	*January 1, 1973 to June 30, 1974*	*1975*	*1976*	*1977*	*1978*
Expenditures						
Operating	10,829	18,111	12,915	13,734	14,635	15,495
Capital						
Existing Debt Service	521	670	443	435	414	386
Authorized but Unissued Debt	–	123	73	72	70	68
New Direct Outlay	431	393	423	645	734	592
New Debt Service	–	163	362	615	590	1,418
Total Capital	952	1,349	1,301	1,767	1,808	2,464
Total Expenditures	11,781	19,460	14,216	15,501	16,443	17,959
Receipts						
Nonlevy Receipts	3,652	5,645	3,971	4,066	4,277	4,381
Direct Taxes	8,129	13,815	10,245	11,435	12,166	13,578
Assessed Valuation	145,000	148,500	152,500	157,500	163,500	187,500
Tax Rate (Dollars)	56.06	93.03	67.18	72.60	74.41	72.42
Reduced Tax Rate[1] (Dollars)	55.99	92.55	66.62	72.16	73.74	71.53

1. If water rates are adjusted so that costs for Capital Improvements for the Water Division are supported by water revenue, then the tax rate would be reduced.

APPENDIX A

STRUCTURAL CONDITION SURVEY

Each housing unit was judged on the basis of its own characteristics, regardless of the neighborhood, age of the structure, or the race or color of the occupants.

The condition of each structure was determined by observation of the outside of the building on the basis of criteria related to the type and extent or degree of visible defects. These criteria are indicated below.

The types of defects are associated with weathertightness, extent of disrepair, hazards to the physical safety of the occupants, and inadequate or makeshift construction. These are signs of other structural defects which may be hidden. Defects which would be revealed only by a more careful internal inspection such as the presence of dampness or infestation, inadequate wiring, and rotted beams, are not included in this survey.

Although lack of paint is only a slight defect, this and other signs of neglect are warnings to look closely for more serious defects. Also, exterior covering may improve the appearance of a structure but not its condition, and the sturdiness of brick or other masonry walls can be misleading if there are defects in other parts of the structure.

Building Condition Code:

Standard

1. No defects
2. Slight defects

Intermediate

3. Intermediate defects

Substandard

4. One or a few critical defects
5. Extensive critical defects

Note: Definitions of the above terms are given in the U. S. Census of Housing, 1960; the appropriate sections are as follows:

Slight Defects. Examples of slight defects are: lack of paint; slight damage to porch or steps; slight wearing of mortar between bricks or other masonry; small cracks in walls, plaster or chimney; cracked windows; slight wear on floors, doorsills, doorframes, window sills, or window frames; and broken gutters or downspouts. (Taken from U. S. Census of Housing, 1960.)

Intermediate Defects. Examples of intermediate defects are: homes, open cracks, rotted, loose, or missing materials over a small area of the foundation, walls, roof, floors, or ceilings; shaky or unsafe porch, steps, or railings; broken or missing windowpanes; some rotted or loose window frames or sashes that are no longer rainproof or windproof; broken or loose stair treads, or broken, loose, or missing risers, balusters, or railings of inside or outside stairs; deep wear on doorsills, doorframes, outside of inside steps or floors; missing bricks or cracks in the chimney which are not serious enough to be a fire hazard; and makeshift chimney such as a stovepipe or other uninsulated pipe leading directly from the stove to the outside through a hole in the roof, wall, or window. *Such defects are signs of neglect which lead to serious structural deterioration or damage if not corrected.*

Critical Defects. Critical defects result from continued neglect or lack of repair, or indicate serious damage to the structure. Examples of critical defects are: holes, open cracks, or rotted, loose, or missing material (clapboard siding, shingles, bricks, concrete, tile, plaster, or floorboards) *over a large area* of the foundation, outside walls, roof, chimney, or inside walls, floors, or ceilings, substantial sagging of floors, walls, or roof; and extensive damage by storm, fire or flood. (Taken from U. S. Census of Housing, 1960.)

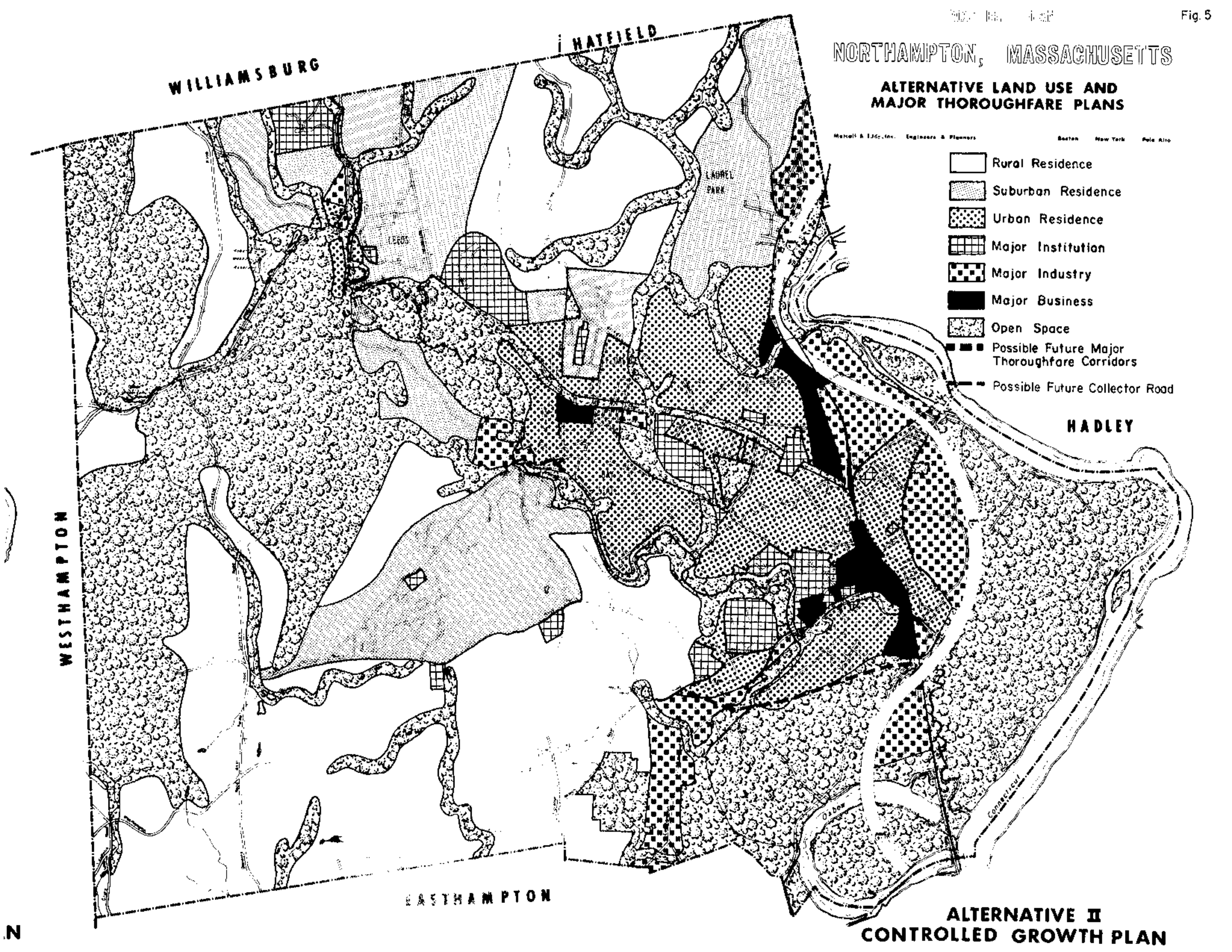
APPENDIX TABLE B-1. PARKING SPACE UTILIZATION

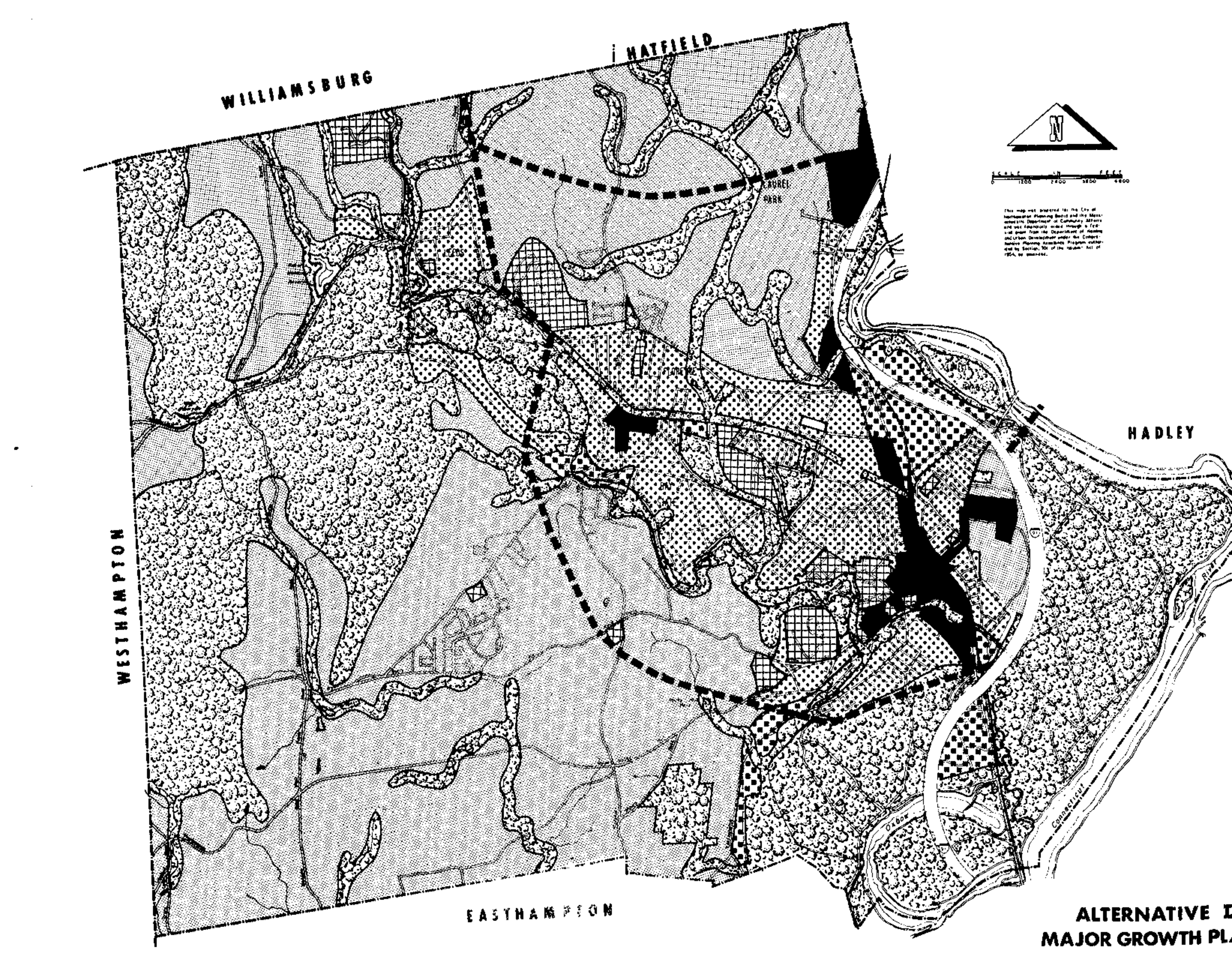
Time period	Percent occupancy by sector I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	Percent occupancy for all sectors
Thursday														
8:00 a.m.	29	50	59	49	81	33	37	46	37	69	46	61	18	44
8:35	91	82	75	66	100	50	53	62	50	108	69	67	37	64
9:15	102	94	93	95	87	59	68	97	62	108	92	91	46	81
9:45	100	88	89	96	97	88	79	108	84	111	93	91	63	90
10:20	103	97	96	95	88	92	78	108	87	100	95	91	63	91
10:55	98	94	95	93	96	91	76	106	85	96	85	83	77	89
11:30	100	94	92	92	79	91	77	91	86	96	87	100	67	88
12:15 p.m.	91	73	62	83	81	83	77	71	88	88	64	83	57	78
1:00	105	94	83	84	83	92	82	92	75	96	50	78	50	80
1:45	97	97	90	83	81	93	85	92	71	92	47	83	78	81
2:30	102	91	98	82	73	92	78	83	72	96	32	91	68	78
3:15	102	94	92	81	81	95	69	94	69	104	27	61	67	75
3:45	84	97	85	72	90	96	66	96	71	104	25	78	80	74
4:30	93	76	73	56	79	92	59	85	76	88	21	80	77	66
5:00	88	56	37	45	58	63	37	79	73	77	20	61	51	51
5:30	97	65	27	46	54	47	37	56	62	81	13	46	51	46
6:15	97	80	25	53	54	50	39	46	68	96	15	35	53	50
7:00	100	91	40	57	58	57	43	46	79	100	16	39	68	55
7:45	98	85	50	44	58	64	52	52	87	85	16	48	73	56
8:30	59	82	37	36	67	51	50	37	83	73	16	33	71	48
Saturday														
9:00 a.m.	87	80	65	39	50	39	37	37	51	73	17	30	40	42
9:45	97	82	74	51	60	65	46	69	62	73	19	46	44	54
10:30	98	94	68	67	75	73	56	77	76	77	18	59	53	63

APPENDIX TABLE B-1 (Continued). PARKING SPACE UTILIZATION

Time period	Percent occupancy by sector *I*	*II*	*III*	*IV*	*V*	*VI*	*VII*	*VIII*	*IX*	*X*	*XI*	*XII*	*XIII*	*Percent occupancy for all sectors*
11:15	98	97	77	56	71	72	67	79	85	111	17	46	39	65
12:00 p.m.	102	91	76	60	67	66	69	81	86	77	16	43	51	63
12:45	100	94	75	54	46	66	55	75	95	85	15	41	46	59
1:30	100	97	79	64	56	73	69	67	81	85	12	72	48	64
2:15	100	94	68	61	56	77	70	77	86	88	16	74	25	65
3:00	100	88	71	63	46	77	66	75	71	81	13	72	50	63
3:45	98	73	45	52	58	68	35	60	72	81	15	48	54	52
4:30	64	76	39	20	60	46	31	64	66	85	16	35	58	42
5:15	21	35	18	15	46	28	25	33	60	69	13	26	75	29

Fig. 5


NORTHAMPTON, MASSACHUSETTS
ALTERNATIVE LAND USE AND
MAJOR THOROUGHFARE PLANS
Rural Residence
Suburban Residence
Urban Residence
Major Institution
Major Industry
Major Business
Open Space
Possible Future Major
Thoroughfare Corridors
Possible Future Collector Road
HATFIELD
WILLIAMSBURG
WESTHAMPTON
EASTHAMPTON
HADLEY
LAUREL PARK
Oxbow
Connecticut
River
ALTERNATIVE II
CONTROLLED GROWTH PLAN



ALTERNATIVE I
MAJOR GROWTH PL